October 17, 1994

PRELIMINARY ASSESSMENT REPORT
Kenyon Building
59 Winthrop Road
Chester, CT 06412
CERCLIS #: CTD000119883

INTRODUCTION

The following Preliminary Assessment (PA) complies with the requirements set forth under the US EPA Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended. The PA represents the first step in a site screening process set forth by the National Contingency Plan (NCP). It does not necessarily fulfill the requirements of other State or Federal regulations such as RCRA. This work is being completed under Connecticut's Multi-Site Cooperative Agreement (MSCA) with the US EPA.

An on-site reconnaissance of the outside property was conducted at the Kenyon Building site, 59 Winthrop Road, Chester, CT on May 8, 1994 by John Hirschfeld and Thomas Botti; and of the inside property on August 8, 1994 by John Hirschfeld and William Warzecha, all of CT DEP. The weather was sunny and 75°F on May 8, and sunny and 87°F on August 8. The survey was conducted in accordance with the September 1991 US EPA Guidance for Preliminary Assessment under CERCLA.

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SITE DESCRIPTION AND OPERATION HISTORY

The Kenyon Building

The Kenyon Building site is located at 59 Winthrop Road (Route 145), adjacent to the Chester Airport in Chester, CT; Latitude 41°23'02"N, Longitude 72°30'25"W. Figure 1 illustrates the surrounding area and 1-mile radius about the site (1). The property lies east of Winthrop Road, and is accessed by the Chester Airport driveway (see Figs. 2 and 3). The site occupies approximately 3 acres and is presently owned by Chester Airport, Inc. Corporate records at the Connecticut Secretary of State indicate Chester Airport Inc. is a dissolved corporation. Although the Kenyon Building was previously a parcel of the Chester Airport proper, it is now separate and not associated with the airport property.

The Kenyon Building is a two story brick building (circa 1959) and is now vacant. The area is zoned as industrial and light research. Across Winthrop Road, just west of the Kenyon Site, zoning is residential. The closest residence is 64 Winthrop Road, approximately 450 feet away.

Chester Airport Inc. originally owned the entire airport properties, including the Kenyon Building. The airport property was divided into several properties and each given a different corporate name of ownership. The Chester Town Assessor is unclear about exactly what name changes occurred, but the Kenyon Building parcel remained under the named ownership of Chester Airport Inc. In the early 1990s, in financial disarray, Chester Airport (and the other corporations owning the airport properties) defaulted on their mortgages held by the New England Bank of Savings. New England Bank of Savings failed and went into receivership under the Federal Deposit Insurance Corporation (FDIC). Foreclosure occurred on all but the Kenyon Building, because of contamination and liability issues (Personal communications with John Olson, Whelen Engineering; Chester Town Assessor's Office) .

The contact person for Chester Airport, Inc. is George Gager (aka: George Kirby). His residence was known as 44 Spring Street, Chester, CT. Jane Kirby is listed with the Town of Chester as the property owner for the Spring Street address. It is unclear if this is still his address. On August 8, 1994 William Warzecha and John Hirschfeld of the CT DEP were able to interview Mr. Gager at the office of United States Congressman Samuel Gejdenson (94 Court Street, Middletown, CT; 203/346-1123), where Mr. Gager is employed.

Several former tenants have resided in the building, including machine shops and electronic manufacturers. Table II summarizes the tenant history. Although Whelen Engineering (parent company of Austin Electronics), through their attorney John Wertam (see attached letters), claims there was a graphics company occupying the Kenyon Building sometime between 1987 to 1991, Mr. Gager has no knowledge of such an operation. Austin was the only past tenant contacted as part of this PA. They were readily available because of Whelen's proximity to the Kenyon Building. The other past tenants were less available and information concerning them was not accessible.

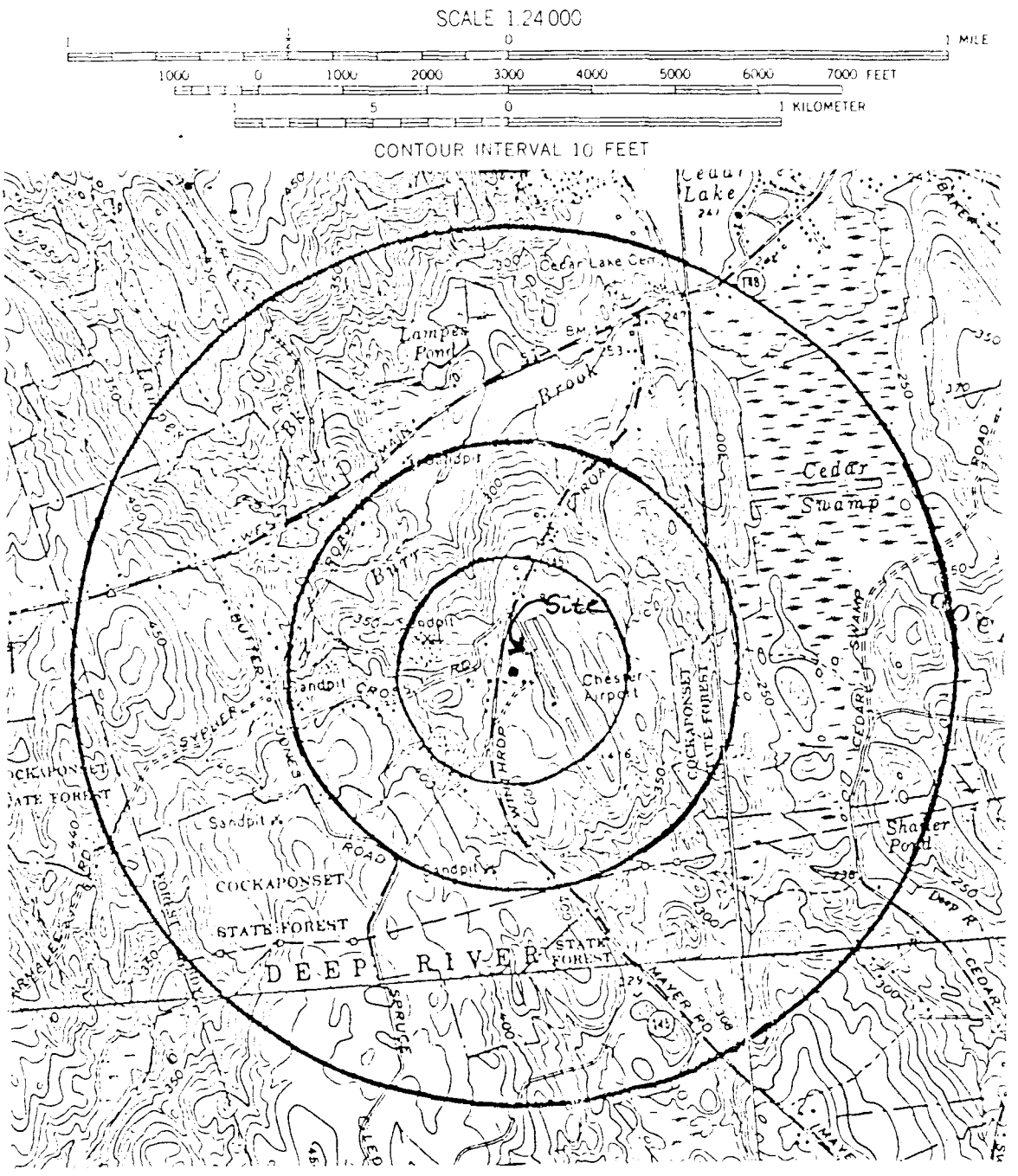
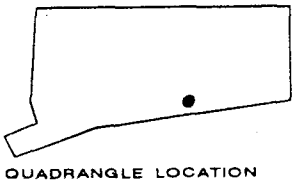


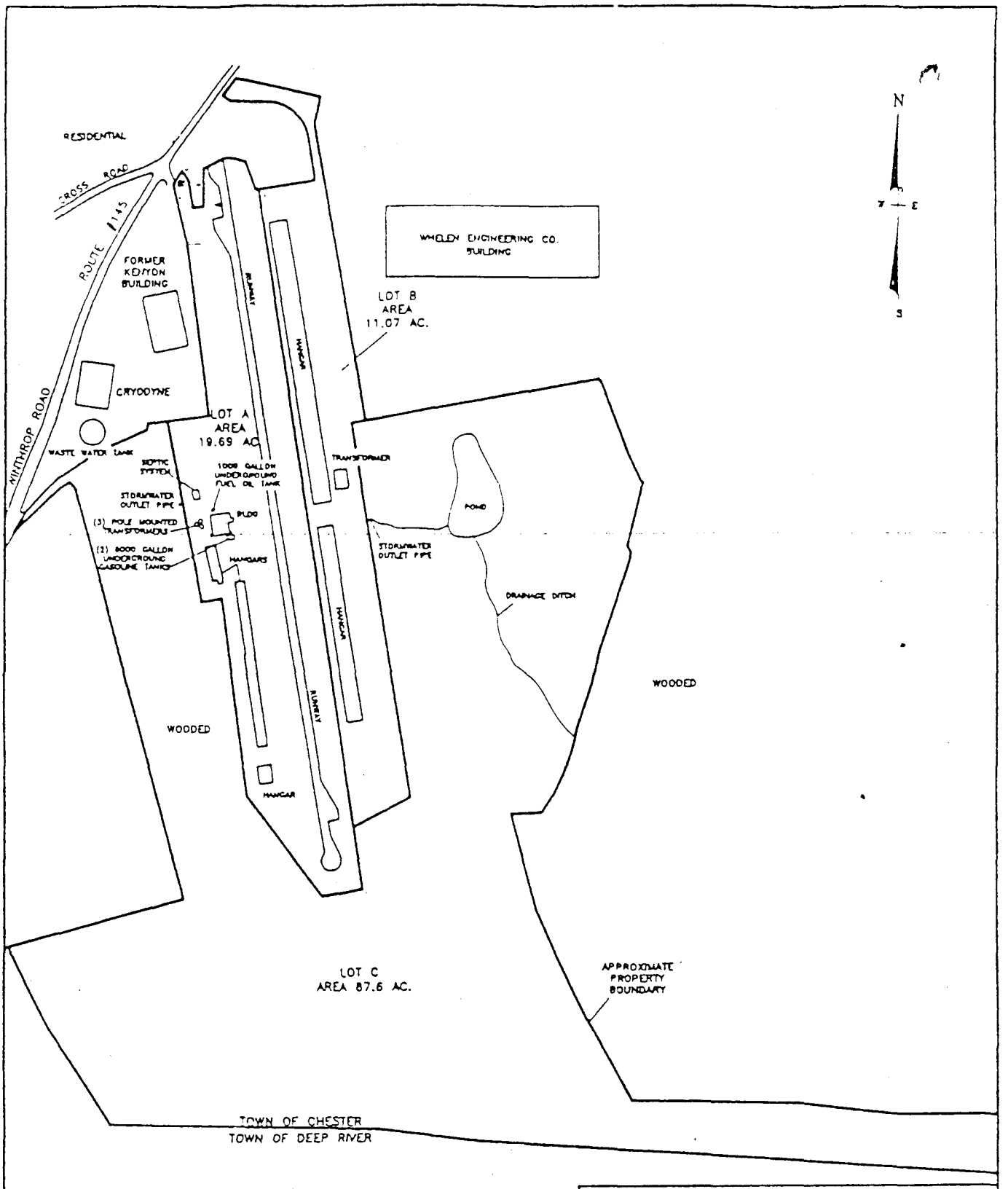
FIGURE 1

KENYON BUILDING
59 Winthrop Road
Chester, CT



QUADRANGLE LOCATION

Map is a portion of
USGS Topographic Map of
Haddam Quadrangle
1961, Photorevised 1971



NOTE: REFERENCE IS MADE TO A MAP ENTITLED "LAND OF CHESTER AIRPORT, INC. WINTHROP ROAD, CHESTER, CONN." BY RICHARD W. GATES, LAND SURVEYOR OF CENTERBROOK, CONNECTICUT DATED NOVEMBER 12, 1987.

CHESTER AIRPORT
CHESTER, CONNECTICUT

FIGURE 2
SITE SCHEMATIC

ATLANTIC PROJECT NO. 1842-01-01
ATLANTIC ENVIRONMENTAL SERVICES, INC.

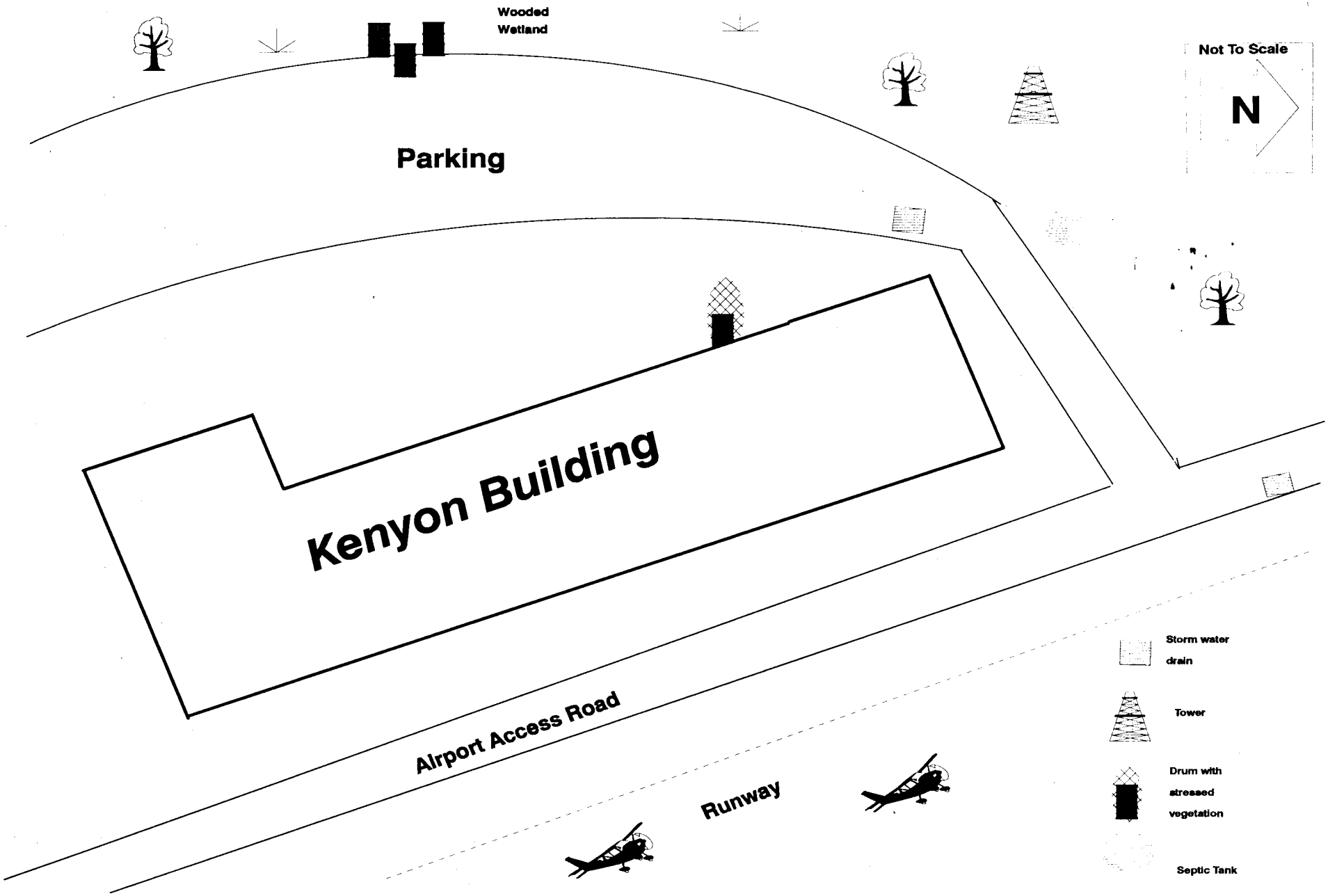


Figure 3. Kenyon Site

In June 1987 YWC, Inc. (2) was retained by George Gager to conduct an environmental audit and underground tank testing at the Chester Airport. At that time the Kenyon Building property and airport proper were both owned by Mr. Gager. The Kenyon Building was described as a small, currently vacant, office and manufacturing building, which has a 1,000-gallon underground #2 heating oil storage tank.

The 1,000-gallon underground #2 heating oil storage tank was tested as a system, including the tank, fill pipe, supply lines, and vent lines. It did not pass the tightness test. YWC indicated that this is not an indication that the tank is leaking, but that there may be a small leak within the systems lines or valving; or that there may be an airpocket within the lines. Subsequent to the testing, the tank was dip stick tested on a daily basis. This visible measurement, according to YWC, indicated there was no change in the volume of #2 heating oil in the tank. YWC concluded, this dip stick checking lended credence to the assumption that the test failure was a result of either an airpocket in the systems lines, or a leak in these portions of the system.

On August 8, 1991 Bill Warzecha, of CT DEP, collected potable water samples from a bathroom sink tap in the Kenyon Building; then occupied by New England Machine. The samples were analyzed specifically for the presence of chlorinated and aromatic hydrocarbons. The results were nondetect. The exact location of the onsite drinking water well is unknown.

On November 7, 1991 William Warzecha of CT DEP, while investigating a problem of contaminated wells on Winthrop Road and adjacent Cross Road visited the Kenyon Building. He met with representatives of Whelen Engineering the parent company of Austin Electronics. Roger Moore, Safety Officer; and James Skeffington, Production Manager were present. James Skeffington actually worked for Austin Electronics when they occupied the Kenyon Building from February 1976 unit May 1984. Austin Electronics is still a division of Whelen Engineering.

Mr. Skeffington stated to Mr. Warzecha during this meeting that Austin used 1,1,1-trichloroethane (TCA) in a vapor degreaser from 1976 until 1979. In 1979 they utilized a waterbased flux rinse in a dishwasher, which was alcohol based. John Olson reported during the CT DEP visit to the airport on May 8, 1994 that Austin shipped the waste to Environmental Waste Recovery (EWR). He mentioned that EWR was out of business. In fact EWR is still in business under the name Environmental Waste Resources. Manifests are not available in CT DEP files for the years (1976 to 1979) Austin used TCA, as this was prior to the State manifest program. Austin (Whelen) did not provide any documentation to support their claim.

George Gager stated during the interview on August 8, 1994, that an employee of Austin Electronics told him that they disposed of solvents into the slop sink on the lower level of the Kenyon Building, and also out back into the wooded area behind the building. He would not give the name of the person making this allegation. He also stated that several other tenants of the building probably used chlorinated solvents. Table I lists the potential sources of contamination at the Kenyon site.

Table I. Source evaluation for the Kenyon Building site

Potential Source	Containment Factor	Spatial Location
Soil in wooded wetland	None	Behind the Kenyon Building, west side
Underground holding tank(septic or dry well, unknown)	known, leaking	North side of site

As part of this assessment CT DEP contacted Philip Smith of EWR (203/755-2283). Mr. Smith indicated they maintain records since 1975. The only records he had concerning Austin Electronics were for three waste streams shipped to EWR on 2/21/83 totaling 5 containers (one 55-gallon drum of organic flux acid, two 1-gallon cans of acrylic oil, and one 55-gallon drum containing ammonium persulfate). Mr. Smith mentioned, if Austin shipped EWR waste solvents during 1976 to 1979 he would have record of it. He also indicated Whelen Engineering is a current client of his.

TABLE II. Summary of tenant history at the Kenyon Building site

Approximate Date of occupancy	Tenant	Type of Facility
1960 to 1965	Kenyon Laboratories	Machine shop
1965-1970	Lear-Siegler	Machine shop
1970-1974	General Telephone & Electronics	Electronic parts assembly
1974	Advanced Electronics Development	Electronic parts manufacturing
1974-1976	Vacant	
1976-1984	Austin Electronics	Electronic parts manufacturing
March 1984-1987	Vacant	
1987-1991	New England Machine	Machine repairs

Bill Warzecha conducted a dye test on the plumbing at the Kenyon Building. Two possible discharge points were identified: a septic tank in the back (west) of the building (which could not be located, but believed to be under the paved parking area) and another tank (cement cestern) just north of the building. It is unclear if the second tank is a septic tank connected to a leach field or dry well. The slop sink on the lower-level dye tested to the second tank. The lavatory room on the lower-level was not dye tested because all the plumbing fixtures were removed. This room may have been used to house the dishwasher used by Austin from 1979 to 1984. There are floor drains in this room. Whelen indicated that the washwater from the dishwater went to the septic system (10-20 gallons per day). The lavatory on the upper-level tested negative to this tank. Toilets on the lower-level, in the southern part of the building, did not lead to the tank.

Effluent samples were taken from the northern tank. The laboratory results are included in the appendix and summarized in Table III. High levels of chlorinated hydrocarbons and alcohols were found. Both constituents were utilized in Austin's operations. Similar alcohol constituents were utilized in the washing operation at the Whelen Engineering facility (see following section).

The washwater operation was similar to that used by Whelen Engineering at their facility just northeast of the airport. They indicated that the effluent contained alcohol based products, none of which have been detected in residential wells in the area. However, alcohols were detected at elevated levels in the underground tank disposal tank at the Kenyon site, sampled by CT DEP in 1991 (see Table III). Indeed alcohols were also present in the effluent discharged to the ground at the Whelen Engineering site in 1984. (Note: it is unlikely that alcohols disposed of into a septic tank would travel through the solum or surficial geology 450 feet to a residential well. Natural biodegradation would prevent this form occurring.)

Whelen indicates that Austin "... pumped the Kenyon septic tank at least 3 to 4 times per year, and had it pumped before terminating it's occupancy of the Kenyon Building." They claim "this pumping would have removed any residual material discharged by Austin into the system." However, they state "we believe this septic system to be separate from the cement cistern which CT DEP had previously sampled."

It is important to note that the location of the septic tank behind the building (west) was never found. It is unclear if Whelen claims they pumped the septic tank never found or the cement cistern, that they claim they did not discharge to. (The cement cistern Whelen is referring to is the tank W. Warzecha sampled and found to be contaminated). The information provided by Whelen concerning Austin's operations at the Kenyon Building is unclear, and little documentation is available to sustain their claims.

Whelen also indicates that both New England Machinery and an unnamed graphics company occupied the Kenyon Building after Austin left. The area of the building New England Machinery occupied was in the south end of the lower-level. They did not have access to the slop sink or lavatory with floor drains in the northern portion of the lower-level. The lower-level was walled-off, and access not possible. George Gager, owner of the building, has no knowledge of a graphics company occupying his property after Austin left.

Mr. Warzecha asked George Gager in a November 20, 1991 letter (attached) to pump out the septic tank and remove the leaching field, because it was a source of contamination. Mr. Gager did not do this. Bill Warzecha pumped the tank dry on February 2, 1992. The sludge was not removed. Groundwater seeped into the tank after the pumping. (Note that when the tank was opened, soil from the surface around the tank opening fell into the tank. Any future sampling of the contents of the tank should be deep enough to bypass this material.)

On August 8, 1994 J. Hirschfeld and W. Warzecha inspected the Kenyon property with the permission of George Gager. The property was vacated and Mr. Gager indicated that he has abandoned the property. He mentioned the property was owned by Chester Airport Inc., and

Table III. Sample results from the underground disposal tank at the Kenyon Building site

Contaminant	Concentration (µg/L)
October 1991	
1,1,1-Trichloroethane	4,000
Trichloroethene	22
1,1-Dichloroethylene	90
cis-1,2-Dichloroethylene	120
1,1-Dichloroethane	2,400
Toluene	320
1,2,3-Trimethylbenzene	7
1,3,5-Trimethylbenzene	3
1,2,4-Trimethylbenzene	9
Methanol	16,000
February 1992	
1,1,1-Trichlorethane	380
1,1-Dichloroethane	690
cis-1,2-Dichloroethylene	23

that he was one of several stock holders in the corporation. The Chester Town Assessor indicates that to their knowledge Mr. Gager is the sole owner of the property; they know of no other stock holders. The Connecticut Secretary of State records indicate Chester Airport Inc. is a dissolved corporation.

The building is in disrepair and plumbing has bursted from freezing. Drums were observed behind the building. About one drum, stressed and dead vegetation is present (see attached photos). This drum is empty and appears to have contained motor oil. A grouping of 3 other drums is overgrown with vegetation and appear to be filled with trash. Adjacent to the building proper is a tower that was used by Lear-Siegler Inc. (1965-1970) to test deep diving sono-buoys. Mr. Gager indicated that a furnace was used in the tower to produce thermal inversion layers. CT DEP did not investigate into the tower structure because it appears to be structurally compromised (see attached photos).

Adjacent Properties

Cryodyne Technologies, Inc.

Cryodyne, a refined gas manufacturing facility, abuts the property about 250 feet to the south-west (67 Winthrop Road). This property is listed on the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), and on the State of Connecticut's Inventory of Hazardous Waste Sites (3). There are no other CERCLIS sites within 1-mile of the Kenyon Building.

In 1990, a former Cryodyne employee alleged that hazardous waste, material tainted with acetonitrile, had been disposed of onsite. The employee alleged that this waste had been buried in the rear of the building. Sampling of nearby residential drinking water wells detected contamination with chlorinated hydrocarbons. Acetonitrile was not detected (3). Initially, five private wells were found to be contaminated. Although, after the initial and subsequent monitoring (since 1991) only three of the five were found to be contaminated; two of which have been on filtration systems since their discovery (Personal communication, W. Warzecha, CT DEP).

The 1993 site investigation completed by G. Caloustian of the CT DEP indicated that "Little or no wastes are generated by the processes employed [by Cryodyne]. Any wastes generated are recycled to the manufactures in lab packs." The soil samples collected were nondetect. Groundwater and sewage samples indicated contamination with volatile organic compounds. The soil sample taken from the leach field on the west side of the property showed trichloroethene (TCE) levels of 275 ppb.

In December 1993, GZA GeoEnvironmental Inc. removed the out of service septic tank at Cryodyne. Chip samples of the inside bottom of the tank (septic concrete) were collected for EPA 8240 analysis. Results were 96 ppb 1,1,1-TCA and 24 ppb TCE. Samples were collected from

the base of the excavation (septic base) at 7.5 feet below grade (approximately 1.5 feet below the septic tank bottom), and from the sidewall (septic sidewall) at 7 feet below grade (1 foot below and 1 foot horizontally outward from the bottom of the tank). Results from the EPA 8240 analysis for the base were 20 ppb 1,1,1-TCA and 5.8 ppb TCE; and for the sidewall were 54 ppb 1,1,1-TCA and 62 ppb TCE (see attached correspondence).

On August 8, 1994 Alan and Marjorie Warner of 64 Winthrop Road filed a civil law suit in Middlesex Superior Court against present and past occupants of the Cryodyne property. The Warners claim that contamination emanating from the Cryodyne facility is responsible for contamination of their drinking water well.

The Chester Airport

The airport (61 Winthrop Road) is located just south and east of the Kenyon Building (see Fig. 2). The airport was recently purchased by Whelen Aviation LLC (18 Hill Road, Old Say Brook, CT; 230/388-4568) and is operated by John Olson, President, Whelen Engineering (Winthrop Road, Chester, CT; 203/526-9504). The purchase was acquired in auction, as a result of FDIC being receiver of New England Bank of Savings, who foreclosed on the airport property because of mortgage default. Whelen Engineering is located just northeast of the airport, and is a RCRA notifier. There are no other RCRA notifiers within 1 mile of the Kenyon Building.

TRC conducted a soil gas survey in October 1990 as part of a Phase II investigation of the Chester Airport (4,5). They indicated "Low levels of volatile organic compounds identified in two soil gas points in the vicinity of the hanger building on the west side of the airport may indicate some degree of contamination in this area." An environmental site assessment (6) was conducted on the Chester Airport in 1992 by Atlantic Environmental Services, Inc. (188 Norwich Avenue, Colchester, CT 06415; 203/537-0751). Additionally, CT DEP conducted a site reconnaissance in May 1994. The airport is relatively clean, as documented by groundwater monitoring and soil sampling in Atlantic's report. J. Hirschfeld and T. Botti observed floor drains in the maintenance and hanger buildings, which have been subsequently sealed. Soil staining was documented outside the maintenance building at the airport where the floor drains discharged to the ground. Sampling by Atlantic revealed petroleum hydrocarbon contamination, but chlorinated hydrocarbons were not detected. There was historic dumping of trash in the southeast area of the airport property. This was removed by Whelen shortly after they purchased the airport. Monitoring well sampling were nondetect for contamination.

Whelen Engineering Company

Whelen Engineering (constructed circa 1984) a manufacturer of emergency strobe lights was cited by CT DEP in 1984 for discharging wastewater from their printed circuit flux washing operation directly into the ground. The CT DEP inspector reported that the waste included flux rinsewater

from a washing machine (Cascade), scrap metal, acrylic, and etching waste. Samples taken from the washing were analyzed for physical/chemical, metals and hydrocarbons. Results showed a pH of 10.2, alkalinity as $CaCo_3$ 1,100 ppm, chlorine 140 ppm, chromium 0.01 ppm, lead 1.3 ppm, tin 6.0 ppm, ammonia 1.2 ppm, other organic nitrogen 1.1 ppm, nitrite 0.07 ppm, and nitrate 2.0 ppm. Methanol was recorded at 60 ppm and iso-propanol at 2.4 ppm. Kenneth Majors of the CT DEP Water Bureau informed Whelen Engineering on October 26 1984 that their discharge of wastewaters to the ground in a GA groundwater area was inconsistent with Connecticut Water Quality Standards. Whelen was instructed to eliminate the discharge to the ground and install appropriate facilities for the collection of these wastewaters and their proper disposal, or eliminate the operation. CT DEP files do not indicate a resolution to the problem.

In June 1990 TRC Environmental Consultants, Inc. (800 Connecticut Boulevard, East Hartford, CT; 203/289-8631) conducted a Phase I Environmental Site Assessment of the Chester Airport (4). They addressed the 1984 issue of discharge of wastewater to the ground at the Whelen Engineering facility: "The Whelen Engineering Company has a private onsite drywell (an unlined pit which allows liquids introduced to the pit to percolate down into the underlying soil and potentially the groundwater) and a private septic system. Although there were no problems identified in the available records, dry wells and leaching fields associated with septic systems are typically items of concern due to the nature of their design." TRC concluded"... the possibility of soil and groundwater contamination cannot be discounted."

As part of this assessment, J. Hirschfeld discussed this issue of the wastewater discharge with John Olson of Whelen Engineering and Whelen's attorney John Wertam of Shipman & Goodwin. A document was provided to J. Hirschfeld addressing the problem (see appendix). The letter from Mr. OIson and Mr. Wertam states: "According to John Olson, President of Whelen Engineering, Whelen worked closely with DEP to resolve the discharge issue. While DEP was not overly concerned by the discharge, because it went to a septic system in a GA classified groundwater area, it had to be either received pretreatment before discharge, or be transported off-site for disposal." In contradiction, CT DEP was and is most concerned about any discharge to the ground in a GA area. Further the document states "Whelen worked closely with DEP and obtained approval ... of installing a 3,000 gallon underground fiberglass storage tank to collect ... effluent from the dishwater. Periodically the tank is now pumped and, under contract with East Hampton municipal treatment system, the dishwater is disposed of there. ...we [Whelen] are disappointed that neither at Whelen, or at DEP, a record of resolving this matter exists." In fact, CT DEP has no record of any approval. State law requires Whelen to have a permit to ship the wastewater to a sewage treatment facility. A permit is required for this type of activity under Connecticut General Statute 22a-430.

Whelen provided sample results from an onsite drinking water well, which was nondetect for contamination. However, proper sampling technique was not necessarily used in obtaining these samples. A brown bottle (presumably 250 mL) was used. Protocol requires a 40 mL sealed vial be used for potable water. Additionally, the depth and screened interval of this well is unknown. Perhaps, if groundwater contamination exists at the Whelen Engineering facility it may not have been detected because of improper sampling technique, or simply because the sample was taken

in an unaffected aquifer. Sample results were also provided for two monitoring wells located just south of the Whelen facility on the airport property. These wells were installed and monitored by Atlantic Environmental Services consultant to Whelen Engineering, as part of their assessment of the Chester Airport. The validity of these wells in quantifying contamination is not necessarily good. Reliable data for groundwater flow relating these wells to the Whelen site does not exist. Atlantic, in there assessment of the airport property indicated that "Based on the large size of the subject property, the number of wells installed is not adequate to develop a ground water contour map" (6).

On August 8, 1994, W. Warzecha and J. Hirschfeld interviewed George Gager the owner of the Kenyon Building. He stated that in the late-1980s he observed the removal of the septic system at Whelen Engineering located at the northern area of the facility site, near the pond. Mr. Gager stated that the tank, tiles, and soil in the leach field were removed. It is unclear why the tank and leach field were removed, or where the excavated soil was put. A new septic system was installed in the same location. Whelen has not provided any information about this in response to CT DEP's queries about possible site contamination or remediation following the documented 1984 discharge of wastewaters to the ground at their facility.

PATHWAYS AND ENVIRONMENTAL HAZARD ASSESSMENT

Environmental Setting

Historically, the property on which and surrounding the Kenyon Building was wooded and undeveloped land. Atlantic Environmental Services compiled a site history from atlases, U. S. Geologic Survey (USGS) topographic maps, aerial photographs, and interviews (6). An 1874 Atlas of Middlesex County, including a map of the Town of Chester showed the property as vacant land. Winthrop Road is evident west of the site. Cedar Swamp can be seen to the east. Sanborn Insurance Maps (1897, 1903, 1908, 1914, and 1925) covering Chester did not include the site area.

A 1934 aerial photo showed a mix of cleared agricultural and forest land. Winthrop Road is evident, as is Cross Road extending southwest from Winthop Road. A 1951 aerial photo shows that the area remained unchanged from 1934. Although, onsite agriculture activities (at the western edge of the present day airport boundary) appeared abandoned and the land overgrown. However, recent (1951) agricultural activities are evident on the remainder of adjacent property (6). (It is important to note the western boundary of the airport property including the Cryodyne and Kenyon sites are wetlands. Perhaps, and probably so, this area was and is not suitable for agricultural activities.)

Chester Tax Assessor's records indicated that the Kenyon Laboratories building was built in 1959. The adjacent Chester Airport, consisting of a runway, terminal building, and hangers were developed in 1960. Aerial photos taken in 1965 show detailed site development at the airport. The site presently occupied by Cryodyne appears as a single manufacturing building with several

trailers parked east of the building. Aerial photos taken 1970, 1975, and 1980 indicate little change. A 1986 aerial photograph shows the airport runway had been extended in both north and south directions. Offsite development to the northeast included the construction of the Whelen Engineering facility. The facility was constructed in 1984. A 1990 aerial photograph shows the addition of new hangers at the airport, which were constructed in 1988 and 1989 (6).

The airport runway is the topographic high point of the area. It slopes off in all directions and affects surface water runoff. The Kenyon Building lies a few hundred feet west of the northern part of the runway.

Soils

Soil on the Kenyon Building site is a coarse-loamy, mixed, mesic typic fragiochrept (Paxton Soil Series). The soils beneath the wooded area just west of the facility site, between the Kenyon Building and Winthrop road is a coarse-loamy, mixed, acid, mesic aeric haplaquept (Leicester Soil Series). Just northwest of the building on the northwestern section of the airport runway is the Woodbridge Soil Series, which is classified functionally also as a coarse-loamy, mixed, mesic typic fragiochrept. The Woodbridge Series is classified separately from the Paxton soil because it is functionally moderately well drained, while the Paxton is well drained. Both have fragipans. horizons at between 30 to 60 inches from the soil surface (7).

These three soils are in the soil order Inceptisols, which are distinguished by horizons of leaching and accumulation (i.e, aluminum or amorphous clays), however, the leached horizon retains some of the weathered minerals (8). The distinguishing features, which are functional properties, are a fragipan in the Paxton soil (i.e., fragiochrept), and poor natural drainage in the haplaquept (aquept meaning wet Inceptisol).

The halaquept does not have a pan horizon, but rather the poor drainage is a result of its position in the landscape in low depressions. Groundwater stands at or close the soil surface at some time during each year, but not at all seasons. The Leicester Soil Series is classified as an upland wetland soil by the CT DEP. Typically, surface soil saturation and perhaps standing water is common in the winter and early spring. The Paxton is found on the side slope, while the Woodbridge is on the broad hilltop.

Surficial Deposits

The 1978 USGS Surficial Geologic Map of the Haddam Quadrangle shows the site area to be overlain by glacial till, predominantly nonsorted, nonstratified sediment, composed of boulders, gravel, sand, and clay. Onsite drilling by Atlantic Environmental on the airport property confirmed this. Most of the Chester Airport runway was constructed on fill material of sands, gravel, and tree stumps and demolition material. The mid to southern part of the airport has been artificially elevated above all other lands in the immediate area (4). The area just west of

Winthrop Road, covering the area of the contaminated homes, is at the edge of ice-contact stratified drift; containing sand, gravel, silt, and clay, in many places poorly sorted, with abrupt changes in grain size (9).

Bedrock

The 1979 CT DEP Bedrock Geologic Map of the Haddam Quadrangle show that the site is underlain by the Middletown Formation; consisting of gray to dark gray, medium-grained hornblend gneiss and amphibolite. These metamorphic rocks are composed of feldspar and various amounts of dark minerals. Gneiss typically contains quartz. Little or no quartz is commonly found in amphibolite(10). Atlantic Environmental's field investigation encountered bedrock at depths ranging from 8 to 33 feet.

Groundwater Pathway

The groundwater beneath the Kenyon Building is classified GA, which presumes it is suitable for direct human consumption without treatment. The State's goal is to maintain this drinking water quality. Depth to groundwater ranges from 2 to 8 feet. The wooded area behind the Kenyon Building is seasonally wet, therefore at times the groundwater may be present at the soil surface. Groundwater flow from the Kenyon Building is presumed to be to the west (1,2,4).

The closest residence is across Winthrop Road to the west approximately 450 feet. This residence is served by a private drinking water well contaminated with TCA, and is supplied with a granular carbon activated filtration treatment system by the CT DEP. The Cryodyne facility is located approximately 250 feet to the south west. There are 2 drilled drinking water wells at Cryodyne that were sampled in 1991 and are not contaminated (3). Because of documented well contamination in the area, an ongoing monitoring program of adjacent private drinking water wells is being conducted by the CT DEP, since 1991. Table IV lists the highest levels of contamination found in this monitoring program. Figure 4 shows the location of the private wells in the immediate area to the Kenyon building. Three private wells have continuously been documented as being contaminated with solvents in the area . Two of these wells are above Connecticut action levels and are being serviced by filtration systems. The well serving the Kenyon Building was sampled by W. Warzecha and was nondetect for contamination.

Seven towns are within the four-mile radius of the Kenyon Building, including Chester, Deep River, Killington, Haddam, Westbrook, Essex, and Clinton. The total population served by groundwater sources within the four-mile radius from the site is 11,477 people (3). Table V lists the residential populations served by public and private drinking-water wells within four miles of the Kenyon Building site (11). Table VI shows the specific public drinking-water wells (12). The population of private well users within a four-mile radius of the site was arrived at by calculating the total population and subtracting out the population served by public water utilities. The total population within the four-mile radius was calculated using the 1990 U. S. Bureau of Commerce Census information on population density for each town.

Table IV. Contamination levels in private drinking-water wells adjacent to the Kenyon Building

Contaminant	64 Winthrop (Warner)	7 Cross (Turner)	3 Cross (Davis)	CT Action Level	Federal MCL
	[micograms per liter (µg/L)]				
TCE	890	4.2	11	5	5
TCA	560	3.5	38	200	200
DCE	250	1.0	23	70 **	
DCA	17		6.6	5	5

** proposed

Table V. Residential populations served by public and private drinking-water wells within four miles of the Kenyon Building

Radial Distance (miles)	People on Public Well Water	People on Private Well Water	Total People
0 to 1/4		45	45
1/4 to 1/2		127	127
1/2 to 1		554	554
1 to 2	93	1,989	2,082
2 to 3	750	2,561	3,311
3 to 4	72	5,286	5,358
TOTAL	915	10,562	11,477

Table VI. Public groundwater supply wells within four miles of the Kenyon Building

Well	Town	Number of Wells	Direction	Population Served
Aaron Manor Geriatrics	Chester	3	2 miles NE	93
Jenson's Beechwood Mobile Home Park	Killingworth	4	3 miles SW	750
Ridgewood Hill Apartments	Deep River	1	3.5 miles E	72
TOTAL				915

Surface Water Pathway

The Kenyon Building is located beyond the 500-year flood plain (13). The probable point of entry (PPE) of overland flow from the Kenyon Building is to an intermittent stream in the woodlot behind the building. This stream, approximately 75 feet west of the site, flows north to Burr Brook (0.4 miles).

However, surface drainage onsite is routed to a storm water drain in the back of the building along the driveway. This outlets into the wooded lot behind the Kenyon Building. It appears that the surface water runoff west of the airport runway flows westward towards the Kenyon property. Along the airport access road, in front of the Kenyon Building, there are storm drains, which ultimately discharge to the storm drainage systems along Winthrop Road. The storm drain behind the Kenyon Building collects runoff on the Kenyon site west of the airport access road. The storm drainage system on Winthrop Road discharges in either direction to Burr Brook, which flows to Cedar Swamp, approximately one mile to the northeast.

The 15-mile downstream surface water pathway from the intermittent stream behind the Kenyon site follows Burr Brook through Cedar Swamp. Burr Brook is classified as class SA water quality. Wetland frontage along Burr Brook, which runs through Cedar Swamp, is 1 mile. Burr Brook

enters Cedar Swamp just south of Cedar Lake. Cedar Lake is a heavily used recreation waterbody by area residents.

Easterly past Cedar Swamp, the surface water pathway enters Pattaconk Brook (a class SA stream), travels through Upper Pond, and then into Jennings Pond. Beyond Jennings Pond the water classification is SC/SA. Continuing, Pattaconk Brook enters the Connecticut River at a distance of 4.5 miles from the Kenyon Building. The Connecticut River discharges southerly into the Long Island Sound. Both the Connecticut River and the Long Island are classified SB. From the discharge point of the Pattaconk Brook into the Connecticut River, the downstream surface water pathway into the Long Island Sound is approximately 12 miles.

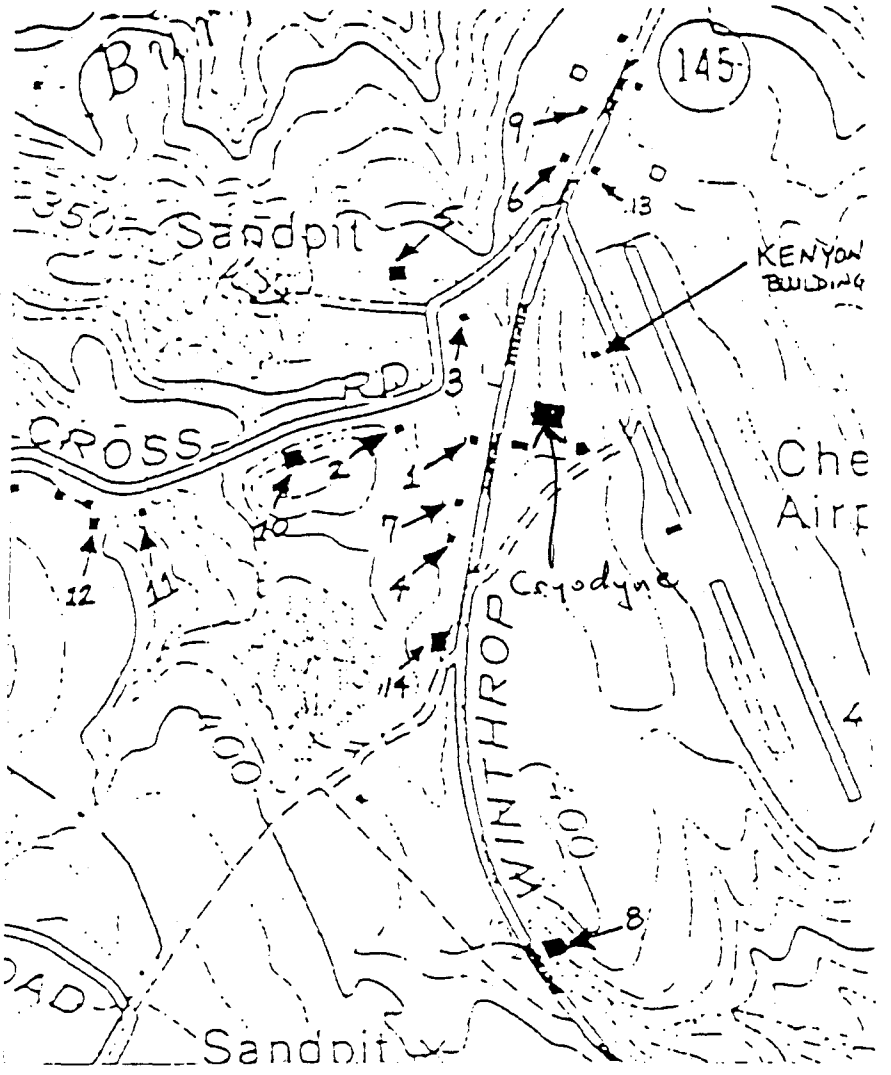
George Gager, owner of the Kenyon Building, provided CT DEP (during their meeting on August 8, 1994) with information of possible spillage of hazardous waste out back of the building; told to him by an unnamed former employee of Austin Electronics. This allegation has not been verified. However, if true, the potential exists for a discharge into the wet Leicester soil and into the surface water pathway (i.e., the intermittent stream in the woodlot). Sampling of surface and sediment has not been conducted on the Kenyon site.

Soil and Air Pathway

The facility is currently vacant. The closest residence is across Winthrop Road separated from the Kenyon Building by a woodlot, approximately 450 feet to the west. There are no schools or day care centers within 1 mile of the site. The site is easily accessible and not secure.

CT DEP observed a drum onsite with dead vegetation surrounding it. The drum is bulging at the bottom and is empty. It appears to have contained petroleum oil, possibly left by New England Machine. Monitoring using a photoionization detector (PID) during CT DEP's site visit on August 8, 1994 did not register any constituents above background atmosphere. Additionally, a grouping of three other drums were observed along the woodlot edge in back of the building. They contained trash. The likelihood of public exposure to hazardous substances onsite is remote. The only known contaminants were found in an underground tank, and discharge is believed to be subsurface.

There are no known federally endangered nor threatened species, nor Connecticut State Special concern species reported within the half-mile of the Kenyon site. Within half- to 1 mile of the site, three species (*Lespedeza repens* , special state concern; *Scirpus torreyi,* state threatened; and *Platanthera ciliaris*, state threatened) and an acidic Atlantic White Cedar Basin sensitive area are identified. Three to four miles from the site an endangered species, *Rhyncospora macrostachya,* is identified. The site is not expected to have an impact on these important natural resources. A copy of the CT DEP Natural Resources Center search concerning this 4-mile radius is attached.

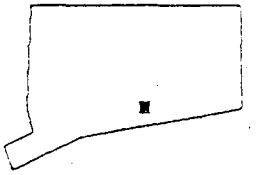


SAMPLE LOCATION MAP
RESIDENTIAL WELL LOCATIONS

CHESTER, CONNECTICUT

KEY:

1. 64 WINTHROP ROAD
2. 7 CROSS ROAD
3. 3 CROSS ROAD
4. 68 WINTHROP ROAD
5. 4 CROSS ROAD
6. 54 WINTHROP ROAD
7. 66 WINTHROP ROAD
8. 57 WINTHROP ROAD
9. 52 WINTHROP ROAD
10. 11 CROSS ROAD
11. 17 CROSS ROAD
12. 19 CROSS ROAD
13. 55 WINTHROP ROAD
14. 72 WINTHROP ROAD



QUADRANGLE LOCATION

FIGURE 4

NOT TO SCALE

SUMMARY AND CONCLUSIONS

The Kenyon Building site is located at 59 Winthrop Road (Route 145) adjacent to Chester Airport in Chester, CT. The site occupies approximately 3 acres and is owned by Chester Airport Inc; although, records at the Connecticut Secretary of State indicate Chester Airport Inc. is a dissolved corporation. George Gager the contact person for Chester Airport Inc., indicated to CT DEP that the property has been abandoned.

Several former tenants have resided in the building, including machine shops and electronic manufacturers. Several drinking water wells in close proximity to the Kenyon Building (450 feet to the west) are contaminated with chlorinated hydrocarbons (890 ppb TCE, 380 ppb TCA), which have also been detected in an underground septic tank at the Kenyon Building (4,000 ppb TCE; 2,400 ppb DCE). The owner of the Kenyon Building made allegations to CT DEP that Austin Electronics, the last tenant at the building, dumped 1,1,1 trichloroethane (TCA) into a slop sink leading to the septic tank, and also into the wooded wetland west of the building.

At an adjacent property to the Kenyon Building (Cryodyne Inc., 67 Winthrop Road), removal of an out of service septic tank revealed contamination with chlorinated hydrocarbons. Analysis of samples taken from the tank concrete, sidewall, and base of the excavation showed 1,1,1 TCA at 96 ppb and 62 ppb TCE. Samples taken from the leachfield indicated 275 ppb TCE.

Whelen Engineering (parent company of Austin) denies they are responsible for the well contaminations in the area. However, they have provided no documentation to support their claims. Elevated alcohol concentrations were in the tank at the Kenyon Building. Alcohol base rinse was used in operations at both Austin Electronics and Whelen Engineering. Whelen Engineering is located just east of the airport property and has a history of discharging wastewaters directly into the ground in a GA classified groundwater area.

REFERENCES CITED

1. U.S. Geological Survey, Topographic map, Haddam quadrangle, 1961, photorevised 1971.

2. Armet, B.W., YWC, Inc. Engineering Division, Environmental audit and underground tank testing the Chester Airport. June 30, 1987.

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4. TRC Environmental Consultants, East Hartford, CT, Phase I environmental site assessment, 61 Winthrop Road, Chester, CT, TRC Proj. No. 7818-P21, June 1990.

5. TRC Environmental Consultants, East Hartford, CT, Phase II subsurface investigation, 61 Winthrop Road, Chester, CT, TRC Proj. No. 8605-P21, December 1990.

6. Atlantic Environmental Services, Inc., Colchester, CT, Environmental site assessment: Chester Airport, 59 Winthrop Road, Chester, CT, Atlantic Proj. No. 1842-01-01, June 1992.

7. Soil Conservation Service, USDA, Soil Survey of Middlesex County, Connecticut, 1979.

8. Soil Conservation Service, USDA, Soil Taxonomy: A basic system of soil classification and interpreting soil surveys. Agr. Hdbk. No. 436, 1975.

9. CT DEP, State Geological and Natural History Survey of Connecticut: The surficial geology of the Haddam Quadrangle, Quad. Rpt. No. 36, 1978.

10. CT DEP, State Geological and Natural History Survey of Connecticut: The bedrock geology of Haddam quadrangle, Quad Rpt. No. 37, 1979.

11. U.S. Department o Commerce, Bureau of Census, Census of population and housing summary: Population and housing characteristics, 1990.

12. CT DEP, Natural Resources Center: Atlas of public water supply sources and drainage basins of Connecticut, 1982.

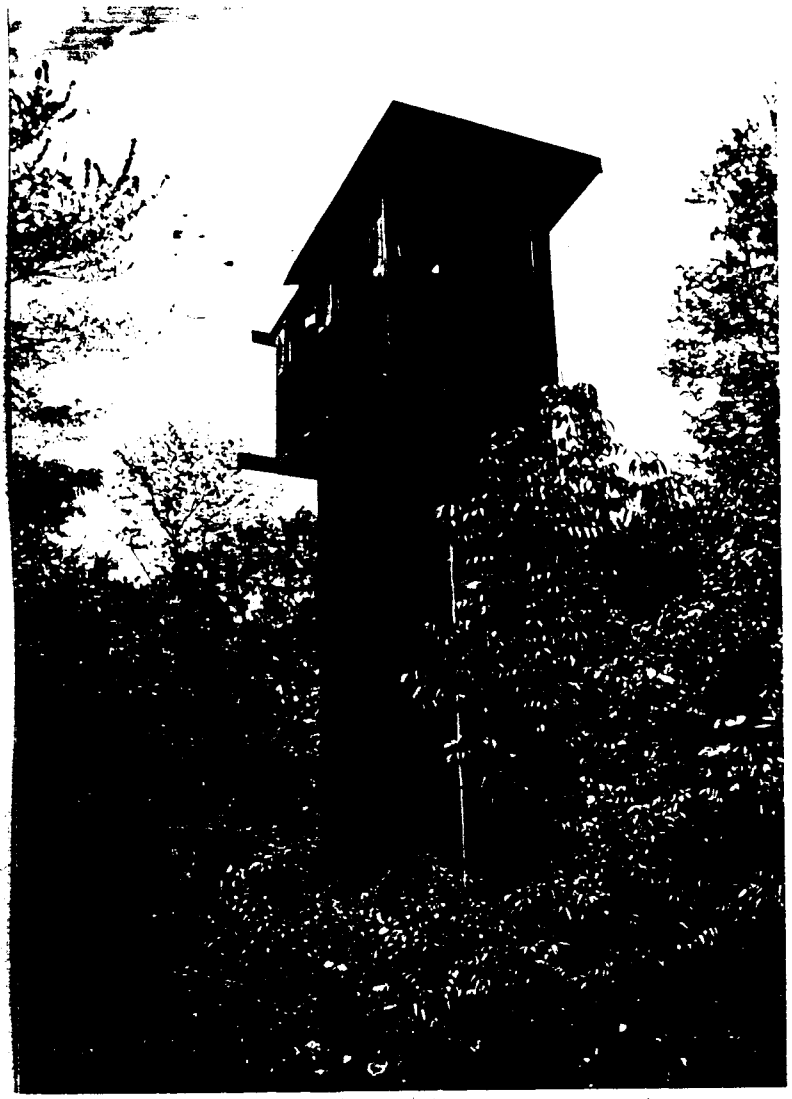
13. National Flood Insurance Program, Flood insurance rate map, Town of Chester, CT, FEME, 1990.

Front of Kenyon Building, next to the Chester Airport Airport terminal is seen in the distance

Back of the Kenyon Building

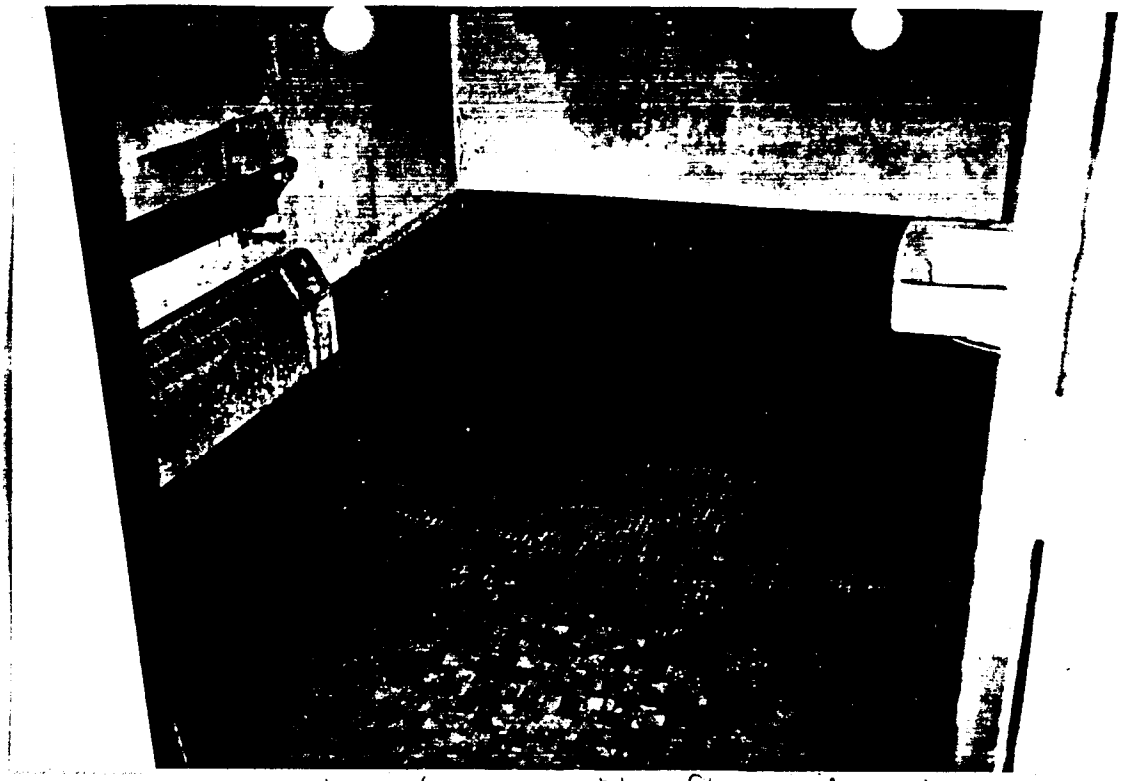
Leaking drum behind the Kenyon Building with stressed vegetation. Believed to be Motor Oil.

Grouping of three drums in back of the Kenyon Building. Believed to be filled with trash.



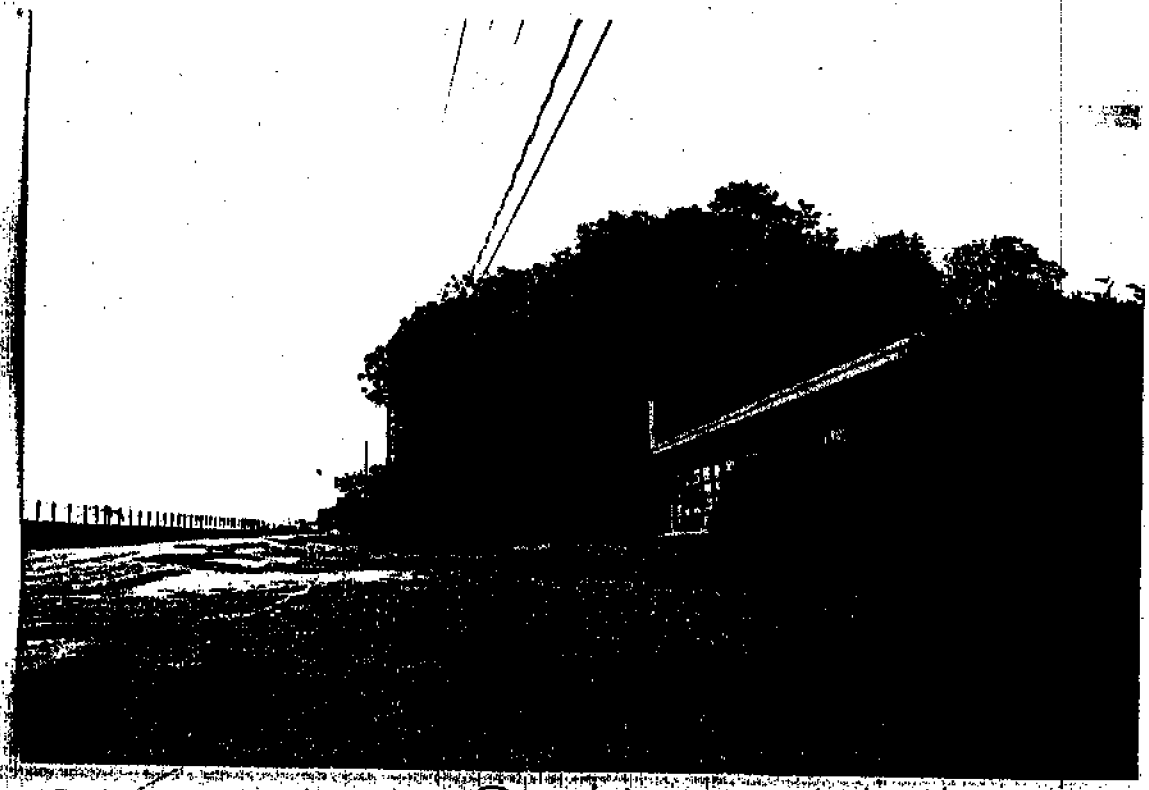
Sono-bouy testing tower on Kenyon Site.

Back of the Kenyon Building.

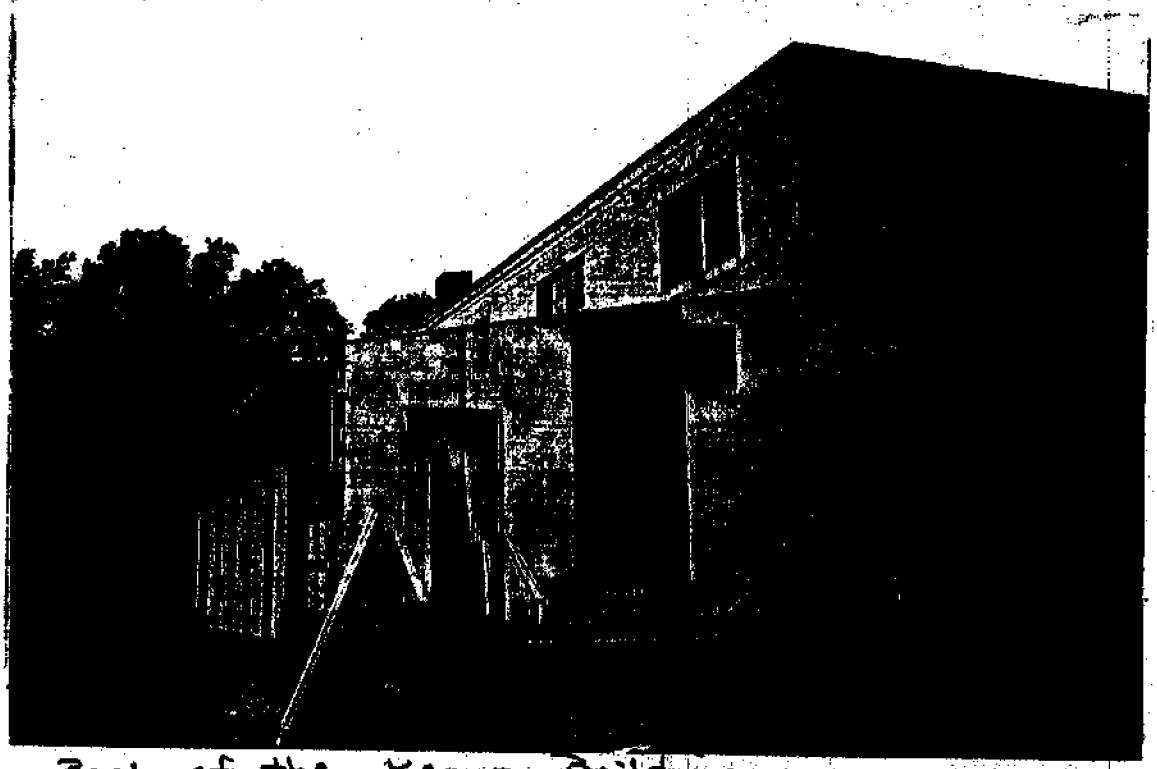


Lower-level lavatory with floor drains. Fixtures have been removed.

Slop sink in lower level of the Kenyon Building



Front of Kenyon Building, next to the Chester Airport Airport terminal is seen in the distance



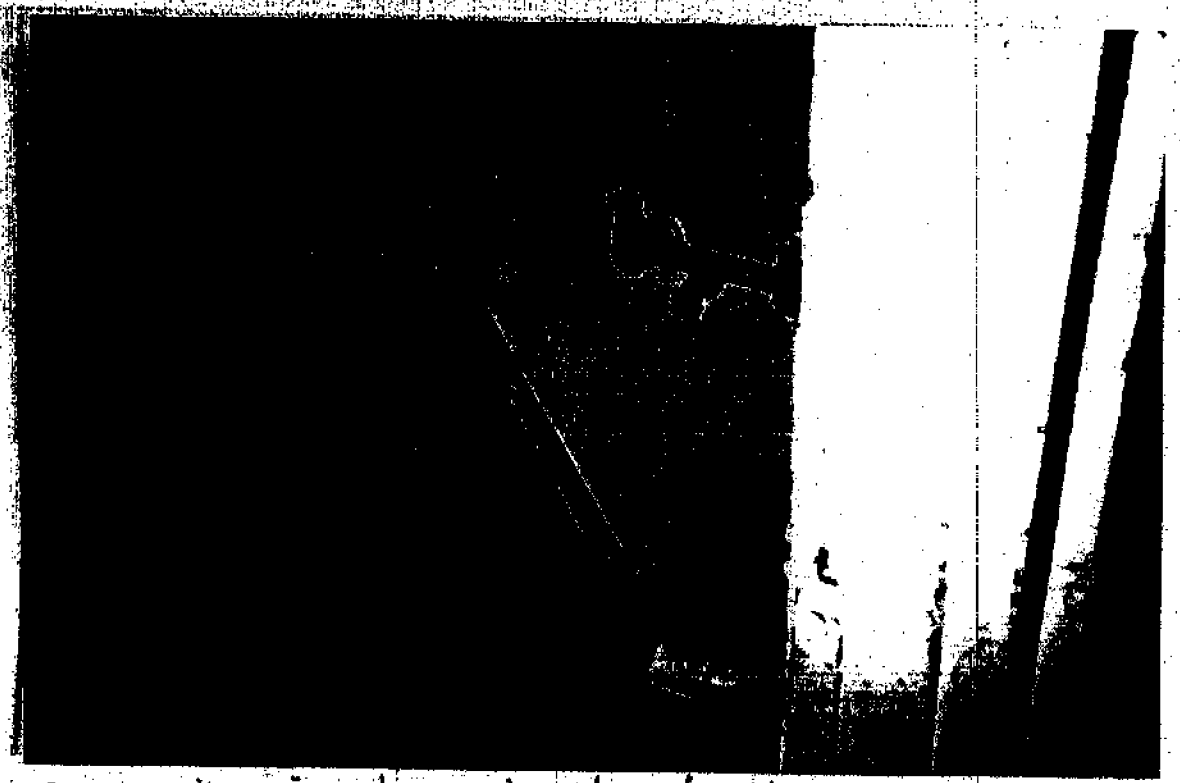
Back of the Kenyon Building

Leaking drum behind the Kenyon Building with stressed vegetation. Believed to be motor oil.

Grouping of three drums in back of the Kenyon Building. Believed to be filled with trash.

Sono-buoy testing tower on Kenyon S.I.

Lower-level lavatory with floor drains. Fixtures have been removed.



Slop sink in lower level of the Kenyon Building

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

September 16, 1991

Mr. George Gager
Chester Airport
59 Winthrop Road
Chester, Connecticut, 06412

RE: Water sample results
59 Winthrop Rd. Chester, CT.

Dear Mr. Gager:

Please find enclosed copies of the water analysis reports as it pertains to the samples that I collected on August 8,1991 from two sampling points located on the above referenced property. One sample was collected from the kitchen sink tap located in the Chester Airport building and the other from a bathroom sink tap located in New England Machinery. While both of these buildings are located on the same parcel of land, it is my understanding that the buildings are served by separate water supply wells.

The samples were analyzed specifically for the presence of chlorinated (solvents used for degreasing) and aromatic (fuel oil and gasoline based products) hydrocarbons. As you are aware, residential wells west of the airport have been adversely impacted by chlorinated hydrocarbon compounds.

As the results indicate neither chlorinated nor aromatic hydrocarbon were detected in the water supply well serving the New England Machinery building. Also, no chlorinated hydrocarbons were detected in the well serving the Chester Airport. However, low levels (<0.5 ug/l) of aromatic hydrocarbons that includes N-butylbenzene, 1,2,3 trichlorobenzene and hexachlorobutadiene were detected in the water supply.

Phone:
165 Capitol Avenue • Hartford, Connecticut 06106

I am still awaiting a response from you or legal counsel for New England Savings Bank regarding the availability of the environmental report prepared several years ago for Chester Airport Property by York Wastewater Consultants. Also, if there have been any subsequent environmental investigations performed on the property I would be interested in reviewing them. As I explained, a review of this report would be very beneficial relative to my investigation of the nearby contaminated residential wells. I would also appreciate if you could supply me with a site plan or map that shows the location of buildings, all water supply wells and septic systems on the Chester Airport Property. I look forward to hearing from you on this matter as soon as possible.

If you have any questions regarding the water quality reports or this letter please feel free to contact me at 566-3654.

Sincerely,

William G. Warzecha

Wiliam G. Warzecha,
Sr. Environmental Analyst
Water Enforcement/Groundwater Section

WGW/mk

cc: Claudia Sklar, Attorney
Larry Gilliam, Sanitarian

STATE OF CONNECTICUT
Department of Health Services
Laboratory Division
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

I.D.	ACCESSION NO.	ACCOUNT NO.		ROUTE
NR:CR104	16089428	S06412		

INFORMATION

026CHESTER
NEW ENGLAND MACHINE
59 WINTHROP RD
CHESTER CT

POTABLE WATER
TOWN OF CHESTER/SANITARIAN
LARRY GILLIAM R.S.
TOWN HALL
CHESTER CT 06412

COLLECTED	RECEIVED	REPORTED
07/31/91 15:30	07/31/91 16:00	09/11/91 13:55

REPORT: FINAL REPORT

COMMENT:

TEST	RESULT	ACCEPTABLE RANGE	LOW	ACCEPTABLE RANGE	HIGH

**.
(SAMPLING POINT: BATHROOM SINK)
(COLLECTOR: W. WARZECHA TITLE: SAN.ENV.ANALYST)
(PRIVATE WELL)
(USE: CONSTANT)
(POSSIBLE POLLUTION: INDUSTRY)

**

EPA METHOD 502.2 HALOGENATED GC 8700
(NONE DETECTED. DETECTABLE LIMIT 0.5 UG/L)

**

EPA METHOD 502.2 AROMATICS GC 8700
(NONE DETECTED. DETECTABLE LIMIT 0.5 UG/L)
*** THIS IS A FINAL REPORT. ***

STATE OF CONNECTICUT
Department of Health Services
Laboratory Division
10 Clinton St
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

POTABLE WATER
CHESTER DIRECTOR OF HEALTH
RUSSELL MUNSON, MD
150 MAIN STREET
CHESTER CT 06412

I.D.	ACC[illegible]N NO.	ACCOUNT NO.		ROUTE
NR:CR105	16089429	D06412		

INFORMATION

D26CHESTER
CHESTER AIRPORT
59 WINTHROP RD
CHESTER CT

COLLECTED	RECEIVED	REPORTED
07/31/91 14:00	07/31/91 16:00	08/15/ 14:2[illegible]

REPORT: FINAL REPORT

COMMENT:

TEST	RESULT	ACCEPTABLE RANGE	LOW	ACCEPTABLE RANGE	HIGH

***
(SAMPLING POINT: KITCHEN SINK TAP) Sr. Environmental Analyst
(COLLECTOR: W. WARZECHA TITLE: ~~SANITARIAN~~)
(PUBLIC WELL TREATMENT: NONE)
(PROPERTY OWNER: GEORGE GAGER)
(REASON: CHLORINATED SOLVENTS CONTAMINATION)
(USE: CONSTANT)
(SOURCE: DRILLED WELL)
(DEPTH: 300FT DIAMETER: 6IN SEALED BELOW GRADE)
(POSSIBLE POLLUTION: INDUSTRY)

***

EPA METHOD 502.2 HALOGENATED GC 8700

(NONE DETECTED)

***

EPA METHOD 502.2 AROMATICS GC 8700

N-BUTYLBENZENE < 0.5 UG/L
123-TRICHLOROBENZENE < 0.5 UG/L
(HEXACHLOROBUTADIENE < 0.5 UG/L)
(DETECTABLE LIMIT 0.5 UG/L)
(ELUTION PATTERN SHOWS TRACE LEVELS OF MID-LATE ELUTING)
(UNIDENTIFIED COMPONENTS.)

*** THIS IS A FINAL REPORT. ***

RECEIVED
AUG 29 1991
WATER COMPLIANCE

FORM NO. OL-6A

WATER COLLECTION/ EXAMINATION REPORT

1. Type or print one set and send to the address below.
2. Reports will be furnished only to local director of health & state agencies.

CONNECTICUT DEPARTMENT OF
HEALTH SERVICES
BUREAU OF LABORATORIES
P.O. BOX 1689
HARTFORD CONNECTICUT 06144

91 JUL 31 PM 4:00

This Section for Laboratory Use			
LABORATORY NO. 89428	TOWN NO. 36	PHYSICAL	COMPLETE
DATE RECEIVED 4 Vial		DATE REPORTED	

SECTION REPORT: NAME OF PROPERTY (Where sample was taken) NEW ENGLAND MACHINE | ADDRESS 59 Winthrop Rd. | TOWN Chester

SAMPLED BY (Name)	COLLECTOR'S NO.	DATE COLLECTED	TIME COLLECTED	SAMPLING POINT
Warzecha	Cr-104	7/31/91	1:30 P.M.	Bathroom sink

Address of person to receive Laboratory Report

Chester Health Dept.
65 Main St.
Chester, CT. 06412

Well Identification: Public ☐ Private ☒

Treatment: None ☐ Filtered ☐ Chlorinated ☐ Softened ☐

Other (Specify) ☐

NAME OF LAB THAT MADE LAST EXAM | DATE OF LAST EXAM

OWNER'S NAME AND ADDRESS (If different from name and address above)
Norm Stoner Old Saybrook, CT.

Fold Here

Conformation to Laws ☐ (Specify) | Suspected of Causing Disease ☐ (Give Details) | Other (Specify or give details here) ☒ Chlorinated solvents contamination

Color ☐ Odor ☐ Taste ☐ Sediment ☐ Foaming ☐ Other (Specify) none

Constant ☒ Emergency ☐ | DATE OF LAST USE Immediate | CONDITIONS THAT MAY AFFECT WATER QUALITY (Specify) Chlorinated solvents

Drilled Well ☐ Driven Well ☐ Dug Well ☐ Spring ☐ Other (Specify) —

WELL DEPTH	WELL DIAMETER	CONDITION OF CURB AND TOP SEAL	DATE OF LAST PLUMBING WORK IN SYSTEM
— Ft.	— In.		—

Septic Tank ☐ Ferry ☐ Industry ☒ Other (Specify) ☐

VOC's chlorinated and aromatic hydrocarbons

Description if Needed: —

Penny Sullivan/Sanitarian | DATE SENT

LABORATORY EXAMINATION REPORT: To be filled out by Laboratory — Note: Chemical results are in Mg/L.

	TRUE COLOR	ODOR	TURBIDITY
NITRITE	Sodium as Na	Manganese as Mn	
NITRATE	Alkalinity as $CaCO_3$ Bicarbonate	Fluoride as F	
AMMONIA	Alkalinity as $CaCO_3$ Carbonate	Detergent as ABS	
ALBUMINOID	Total Hardness as $CaCO_3$	Sulfate as SO_4	Hydrogen-Ion Concentration (pH)
	Iron as Fe	MEMBRANE FILTER TEST Coliform Colonies/ 100ML	

CONCLUSIONS: The results of the analysis of this sample -

...uirements for a potable water.

...the requirements for a potable water because:

...liform density exceeds acceptable limits. The presence of the coliform group, while not necessarily meaning that disease producing organisms ...sent, does indicate that such contamination might reach the supply to the same extent. The water should be considered as unsafe for drinking ...source of this bacterial contamination can be located and removed.

...ncentration of certain chemical or physical constituents exceeds acceptable limits. These are as follows:

RECEIVED
SEP 06 1991
WATER COMPLIANCE

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

November 20, 1991

Mr. George Gager
Chester Airport
59 Winthrop Road
Chester, CT 06412

Re: Septic tank/soil sample results
59 Winthrop Road
Chester, CT.

Dear Mr. Gager,

Enclosed are copies of the septic tank effluent and soil sample results that I collected at the above referenced property on October 11, 1991. One sample each was collected directly from the septic tank that serves the Kenyon Building, which is located at the northern end of the airport property and the septic tank serving the Chester Airport terminal/maintenance garage building. These samples are identified on the attached result forms as Cr-100 and Cr-101, respectively. Additionally, two soil samples were collected several feet beyond the daylight point for the floor drain pipe that emanates from the maintenance garage bay which is connected to the Chester Airport terminal building. Liquid material conveyed by this floor drain pipe discharges to the surface of the ground on the west site of the building. The soil samples, which are identified as SS #1 and #2 on the attached reports were collected at two points along the drainage pathway, which is clearly visible by the discoloration and erosion of the soil surface in the area.

As the report for sample Cr-100 (septic tank effluent that emanates from the Kenyon Building) indicates, numerous chlorinated hydrocarbon compounds as well as aromatic hydrocarbon compounds that includes 1,1,1 trichloroethane (4,000 ug/l), trichloroethylene (22 ug/l), 1,1 dichloroethane (2400 ug/l), methanol (16,000 ug/l), toluene (320 ug/l), 1,2,3 trimethyl benzene (7 ug/l), 1,3,5 trimethyl benzene (3, ug/l), 1,2,4 trimethyl benzene (9 ug/l), 1,1-dichloroethylene (90 ug/l), and cis 1,2-dichloroethylene (120 ug/l) were found to be present in the sample. Due to the high levels of contaminants reported in the septic tank effluent, the liquid material represents a source of contamination to the local groundwater. As such, immediate steps should be taken to have the liquid material and sludge that has accumulated at the bottom of the tank removed by a Connecticut licensed waste hauler. The concern here is that water usage in the part of the Kenyon Building that discharges to the septic tank sampled will force solvent laden water to the leaching field thereby further impacting groundwater quality.

If the leaching field serving the above mentioned septic tank consists of pre-fabricated leaching structures such as a leaching pit (drywell) or galleries they should be checked for liquid material. The presence of liquid material in a leaching pit or gallery would warrant removal since it is also likely to be a source of solvent contamination to the groundwater. Additionally, as we've discussed in the past, there may be another septic system serving the Kenyon Building. This should be definitively ascertained as soon as possible so that I can sample it. Please contact me once it has been made accessible.

The results for #Cr-101, which represents septic tank effluent that emanates from the Chester Airport terminal/maintenance garage indicate the presence of petroleum product in the range of mineral spirits/paint. As the report indicates, one compound, toluene (150 ug/l) was detected in the sample. Amongst other uses, toluene is a component of aviation gasoline. Judicious care is needed to insure that potential contaminants other than domestic (sanitary wastes) are not discharged to the on-site septic systems.

The results for soil sample #2 shows soil contamination by an unidentified petroleum product in the range of motor oil, lubricant oil and/or asphalt. Since the floor drain emanates from the airplane maintenance garage bay, immediate steps should be taken to seal off the floor drain so that it does not convey wastes to the groundwater. Wastes that spill onto the floor should be piped to a watertight holding tank which is equipped with visual and audible alarms and removed by a Connecticut licensed hauler as necessary.

Because the sources of contamination mentioned in the preceding paragraphs pose a great risk to the groundwater, all necessary work required by this letter should be done in an expeditious manner. Also, you should be aware that the Commissioner is planning to issue an administrative order to the owner(s) of the Chester Airport property to investigate the extent and degree of contamination emanating from the site. This order will be issued in the next several weeks.

If you have any questions please feel free to contact me at 566-3654

Sincerely,

William G. Warzecha

William G. Warzecha
Senior Environmental Analyst
Bureau Water Management
Groundwater Section

WGW/ar

cc: Larry Gilliam

STATE OF CONNECTICUT
Department of Health Services
Laboratory Division
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

I.D.	ACCESSION NO.	ACCOUNT NO.		ROUTE
	16090242	A01081		

TOWN NR:26

INFORMATION

26CHESTER
CHESTER AIRPORT

CHESTER CT

LAB REPORT
DEP LAND DISPOSAL/SOLID WASTE
WATER COMPLIANCE
122 WASHINGTON
HARTFORD CT 06106

COLLECTED	RECEIVED	REPORT
/ /	10/11/91	11/07
10:45	13:33	07:5

REPORT: FINAL REPORT COMMENT: NR:CR-100

TEST	RESULT	ACCEPTABLE RANGE	LOW	ACCEPTABLE RANGE	HIG
**					
(NPDES NO: 00000 IND: -)					
(STATE PERMIT NO: 101197)					
(SOURCE: AIRPORT COLLECTED FROM: AIRPORT)					
(TIME START: 10 TIME END: 0000)					
(COLLECTOR: WILLIAM WARZECHA)					
**					
(HYDROCARBONS-SIGMA 2000 FID FID AND SIGMA 300 FID)					
1,1,1 TCE	4,000 UG/L				
TRICHLOROETHYLENE	22 UG/L				
1,1 DICHLOROETHANE	2,400 UG/L				
METHANOL	15,000 UG/L (AREA)				
TOLUENE	520 UG/L				
1,2,3 TRIMETHYLBENZEN	7 UG/L				
1,3,5 TRIMETHYLBENZEN	3 UG/L (AREA)				
1,2,4 TRIMETHYLBENZEN	9 UG/L				
	1,1-DICHLOROETHYLENE 90 UG/L				
	CIS 1,2-DICHLOROETHYLENE 120 UG/L				
(ELUTION PATTERN ALSO SHOWS MID ELUTING UNIDENTIFIED)					
(PETROLEUM PRODUCT IN THE RANGE OF PAINT THINNER/MINERAL)					
(SPIRITS.)					
*** THIS IS A FINAL REPORT. ***					

Date analysis complete 10/17/91

FORM NO. OL-6A

STATE OF CONNECTICUT
Department of Health Services
Laboratory Division
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

TOWN NR:26

LAB REPORT
DEP LAND DISPOSAL/SOLID WASTE
WATER COMPLIANCE
122 WASHINGTON
HARTFORD CT 06106

I.D.	ACCESSION NO.	ACCOUNT NO.	ROUTE
CR-101	16090243	A01051	

INFORMATION
26CHESTER
CHESTER AIRPORT

CHESTER CT

COLLECTED	RECEIVED	REPORT
/ / 00:00	10/11/91 13:33	10/17 14:4

REPORT: FINAL REPORT COMMENT: NR:CR101

TEST	RESULT	ACCEPTABLE RANGE	LOW	ACCEPTABLE RANGE	HIG
***					
(NPDES NO: 000000 IND: 0)					
(STATE PERMIT NO: 0101191)					
(SOURCE: AIRPORT COLLECTED FROM: AIRPORT)					
(TIME START: 00 TIME END: 0000)					
(COLLECTOR: W. WARZECHA)					
***					
(HYDROCARBON SIGMA 2000 AND 300 FID)					
(ELUTION PATTERN SHOWS MID ELUTING UNIDENTIFIED)					
(PETROLEUM PRODUCT IN THE RANGE OF MINERAL SPIRITS/PAINT)					
TOLUENE	150 UG/L				
*** THIS IS A FINAL REPORT. ***					

18 Oct 91

RECEIVED
1991
WATER COMPLIANCE
Dept. of Environmental Protection

FORM NO. CL-6A

STATE OF CONNECTICUT
Department of Health Services
Laboratory Division
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

I.D.	ACCESSION NO.	ACCOUNT NO.	ROUTE
SS-1	16090244	A01081	

TOWN NR:26

INFORMATION

26CHESTER
CHESTER AIRPORT

CHESTER CT

LAB REPORT
DEP LAND DISPOSAL/SOLID WASTE
WATER COMPLIANCE
122 WASHINGTON
HARTFORD CT 06106

COLLECTED	RECEIVED	REPORTED
/ / 12:00	10/11/91 13:33	10/17/ 16:18

REPORT: FINAL REPORT

COMMENT: NR:SS-1

TEST	RESULT	ACCEPTABLE RANGE	LOW	ACCEPTABLE RANGE	HIGH

:**
(NPDES NO: 0000000 IND: 00)
(STATE PERMIT NO: 101191)
(SOURCE: AIRPORT COLLECTED FROM: AIRPORT)
(TIME START: 12 TIME END: 0000)
(COLLECTOR: W.WARZECHA)

:**
(HYDROCARBON SIGMA 2000 AND 300 FID)
(ELUTION PATTERN SHOWS EARLY ELUTING UNIDENTIFIED PEAKS)
(CHARACTERISTICALLY OF SOILS. ELUTION PATTERN SHOWS)
(UNIDENTIFIED MID ELUTING COMPONENTS.)
*** THIS IS A FINAL REPORT. ***

180-197

RECEIVED
199
WATER COMPLIANCE
Dept. of Environmental Protection

FORM NO. OL-6A

STATE OF CONNECTICUT
Department of Health Services
Laboratory Division
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

I.D.	ACCESSION NO.	ACCOUNT NO.	
35-2	16090245	A01081	

TOWN NR:26

INFORMATION

26CHESTER
CHESTER AIRPORT

CHESTER CT

LAB REPORT
DEP LAND DISPOSAL/SOLID WASTE
WATER COMPLIANCE
122 WASHINGTON
HARTFORD CT 06106

COLLECTED	RECEIVED	REPORT
/ /	10/11/91	10/17/
12:15	13:33	14:48

REPORT: FINAL REPORT

COMMENT: NR:SS-2

TEST	RESULT	ACCEPTABLE RANGE	LOW	ACCEPTABLE RANGE	HIG

**
(NPDES NO: 0000000 IND: 00)
(STATE PERMIT NO: 101191)
(SOURCE: AIRPORT COLLECTED FROM: AIRPORT)
(TIME START: 12 TIME END: 0000)
(COLLECTOR: W.WARZECHA)

**
(HYDROCARBON SIGMA 2000 AND 300 FID)
(ELUTION PATTERN SHOWS EARLY ELUTING UNIDETIFIED PEAKS)
(CHARACTERISTICALLY OF SOILS. ELUTION PATTERN SHOWS)
(UNIDENTIFIED MID ELUTING COMPONENTS. ELUTION PATTERN ALSO)
(SHOW A LATE ELUTING UNIDENTIFIED PETROLEUM PRODUCT)
(IN THE RANGE OF MOTOR OIL/LUBRICANT OIL/ ASPHALT..)
*** THIS IS A FINAL REPORT. ***

18 Oct 91

199

WATER COMPLIANCE
Environmental Protection

FORM NO. OL-6A

Shipman & Goodwin
Counselors at Law

ONE AMERICAN ROW
HARTFORD, CT 06103-2819
TEL: (203) 251-5000

JOHN E. WERTAM
TEL: 251-5813
FAX: 251-5899

May 15, 1992

WATER BUREA
MAY 15 1992

VIA HAND DELIVERY

William G. Warzecha
Senior Environmental Analyst
Water Management Bureau
Department of Environmental Protection
122 Washington Street
Hartford, Connecticut 06106

Re: Chester Airport

Dear Bill:

Thank you for the opportunity to review the file regarding DEP's investigation of wells along Winthrop Road (Route 145) opposite the Cryodyne facility in Chester, Connecticut. We represent Austin Electronics, a former tenant of what is referred to in the DEP file as the "Kenyon Building" parcel located west of the airport runway and along Route 145.

We have carefully reviewed the DEP file information and interviewed former employees of Austin, and believe your evaluation of the area will benefit by considering the information below.

This information reviews past and present ownership of the Chester Airport properties, as well as the parcel now occupied by Cryodyne. Tenant activities on the parcels are also reviewed, and then we evaluate the existing file information to assist DEP in identifying potential sources we believe the DEP should consider in its investigation. Nothing herein can or should be construed as an allegation by Austin that it, or other parties, are responsible for material discovered in certain area wells. However, we believe a full evaluation of all the facts with all potential responsible parties will lead to an effective resolution of this matter.

A. Current Ownership of Chester Airport Parcels.

Enclosed as Attachment 1 is a map entitled "Land of Chester Airport, Inc." dated 11/12/87, that shows the divided Chester Airport parcels. There are four separate parcels shown on the map, in addition to the Cryodyne Parcel.

1. The Kenyon Building Parcel

The Kenyon Building parcel is adjacent to Route 145 and north and east of the airport runway, shown on the enclosed map as having an area of 3.19 acres. We have labeled it the "Kenyon Parcel".

a. Ownership.

The current owner of the Kenyon Building parcel is Chester Airport, Inc. Enclosed as Attachment 2 is a title report dated March 13, 1991 for this parcel, as updated through January 6, 1992 by Attachment 3 . The current Secretary of State records indicate the following address for the owner of this parcel: Chester Airport, Inc., Chester, CT 06412.

While the DEP file refers to an entity called "Barnstormers, Inc.", such entity has no title interest in this parcel, or any other parcel associated with the Airport (See Attachment 3).

Please note that Attachment 3 also refers to a bankruptcy court proceeding involving the owners of various Chester Airport parcels. However, as of January 17, 1992, the Chapter 11 proceeding was converted to a Chapter 7 (liquidation) proceeding. This means that the Bankruptcy Court no longer has any jurisdiction over the matter, and that all of the protections of the Bankruptcy Code, including any automatic stays that may have been available under the Code, are now terminated. In essence, the debtors for the properties are back in control, and secured creditors may resume foreclosure proceedings which have been initiated in Superior Court. Likewise, nothing under the Bankruptcy Code should restrain the DEP from proceeding against the current owners of these parcels, if it chooses to do so.

b. Operators/Tenants.

Current and former operators and tenants of the Kenyon Building parcel, their approximate dates of operation, and use of the facility to the best of our knowledge, are as follows:

Dates of Occupancy	Operator/Tenant/Use	Current Contact (according to Sec'y of State)
Present to 1991	Vacant	
1991 to 1987	New England Machine (Lower level) machine repair - solvent use.	George Gager
	(Upper level) office, personal business; Graphic Arts - possible solvent use.	George Gager
1987 to March 1984	Vacant	
1984 to 1976	Austin Electronics, a subsidiary of Whelen Engineering Company. (Upper and lower levels) Electronics parts manufacturing. Small vapor degreaser was used from 1976 to 1979, when the company converted to a detergent wash operation. (See further evaluation below). All solvents shipped off site through EWR or its predecessor.	John Olson
1976 to February 197?	Austin Electronics (Upper and lower levels) Electronic parts manufacturing. Small vapor degreaser was likely used - full extent of solvent use unknown at this time.	by merger - see above.
1976 to 1974	Vacant	
1974 to ?	Advanced Electronics Development, Inc. (AED) (Upper level) Electronic Manufacturing	Lawrence E. Bachman, President (as of 4-1-82) Advanced

		Electronics Development, Inc. 880 Boston Post Rd. Old Saybrook, CT 06475
	A Ceramics Company (Lower level)	
1974 to 1970±	General Telephone & Electronics Corporation Electronic assembly. ~~Probable Solvent Use.~~	Charles R. Lee, President GTE Corporation One Stamford Forum Stamford, CT 06904
1970± to 1965±	Lear Siegler Inc.; (Both Levels)(Upper level) manufacturer of deep diving sono-buoys. (Lower level) large heavy duty machine shop ~~Solvent use probable.~~	c/o Rapistan Corp. Peter Metros, President Suite 105 220 S Orange Ave. Livingston, NJ 07039
1965± to 1960	Kenyon Laboratories, Inc.; (both levels) manufacturing gyroscope stabilizers with machine shop and electronic production and mechanical assembly facilities. ~~Solvent use probable.~~	

2. <u>Lot 3 - Airport Operations Parcel</u>

a. <u>Ownership.</u>

The lot upon which the current airport operations occur, and which have been evaluated by at least one consultant (YWC) is shown on the enclosed map as "Lot #3 Area = 19.69 Ac". The owner of lot 3 is Chester Land Company (See Attachment 4, as updated by Attachment 3). According to the Secretary of State, the current owner's address is:

Chester Land Company,
54 Winthrop Road
Chester, CT 06412

b. Operators/Tenants.

Site assessments prepared by YWC (dated June 30, 1987) and TRC (Phase I [June 14, 1990] and Phase II [December 1990]) indicate the use of the parcel to be primarily for airport operations, including office use and for the maintenance, washing and refueling of airplanes. It appears the owner is the operator of this facility, but this has not been verified.

✓ 3. Lot 4

a. Ownership.

Lot 4 as shown on the enclosed map lies adjacent to and east of the airport runway. It is owned by Land Associates Limited Partnership (See Attachment 5 as updated by Attachment 3).

b. Operators/Tenants.

The current use of Lot 4 appears to be for the storage of planes in airport storage hangars.

4. Land of Chester Airport, Inc. - Area of 87.46 acres

The Attachment 1 map shows land of Chester Airport, Inc Area = 87.46 Ac., which is currently owned by Connecticut Valley Research and Development Group, a limited partnership (See Attachment 5, as updated by Attachment 3).

This parcel was the subject of TRC's Phase I and Phase II investigation.

5. Cryodyne Facility

a. Ownership.

According to Attachment 1, this parcel was owned by Real Estate One as of 1987. It was later transferred to Kedah Corp., the current owner.

b. Operators/Tenants.

The following describes, to the best of our knowledge, the occupancy and uses of the Cryodyne parcel:

Dates of Occupancy	Operator/Tenant/Use	Current Contact
Present-199?	Cryodyne. Bottled gases, some alleged improper disposal of material on-site and possibly into septic system. (See file information DEP sample results).	Cryodyne, Inc.
Other tenants	Their tenants may have simultaneously occupied the Cryodyne parcel with Cryodyne.	
199? to _____	Vacant	
1987 to 1973±	Chestel, Inc and Chestel, a division of IPC. Electronic and telephone parts manufacturing. Vapor degreaser used. Solvent disposal in septic system (See P.A. in DEP files).	Gerald P. Paris, President (as of 3/2/90) Chestel, Inc. Contel IPC, Inc. One Station Pl. Stamford, CT 06902
1980 to 1978	GBR Machine Shop (Rear portion building) various solvent uses.	
1978 to 1975	T.V.C. (Rear portion of building) manufacturing of transformers	
? to ?	JVC Tool & Die	
1978 to 1974	Target Machine Company (Rented from Chestel) Machining and machining parts. Various solvent use.	

1973 to 1969	Chester Electronics, a division of General Telephone & Electronics, and Sylvania Electronics and telephone equipment manufacturing Vapor degreaser used, (1969 to 1972).	GTE Corporation Charles R. Lee, President One Stamford Forum Stamford, CT 06904
1969 to 1960	Chester Electronics, Inc. Electronics manufacturing vapor degreaser used (1966 to 1969).	

B. DEP File Review.

We are confident the DEP will thoroughly evaluate the file information during its investigation of this matter. However, we think the following will help DEP to clarify some issues and assist you in evaluating this already complex factual situation. Moreover, information as it relates to the activities of Austin Engineering do not as yet exist in the DEP file, and we believe the Agency should consider what we provide below prior to completing its investigation.

1. Cryodyne Site

The initial well water investigation in this area appear to have begun with allegations of improper disposal activities at the Cryodyne site. We understand that such investigation is continuing, and it would appear Cryodyne, because of its proximity to the wells under investigation, and based on samples from its septic system, would be a candidate for evaluation by the DEP. Not only may Cryodyne's activities need to be evaluated, but other owners or tenants on the site as well. Information exists within the DEP file that Chestel, Inc., a former occupant of the site, may have discharged methanol, isopropyl alcohol, and ammonium persulfate into on-site leaching fields, and that 1,1,1-trichloroethane was used on-site. Since chlorinated hydrocarbons, particularly trichloroethylene and 1,1,1-trichloroethane, appear to be the compounds of interest in DEP's well investigation, it is possible that this site either through current or prior

activities, could have introduced chlorinated hydrocarbons into the environment. Therefore, all current and past owners and operators of the Cryodyne site must be considered in the DEP's evaluation of this area.

2. Airport Operations Parcel - Lot #3

Activities occurring on Lot #3 over a period of time, as described in the YWC and TRC reports, must be considered by DEP in its evaluation. The YWC report determines that petroleum hydrocarbon fractions exist in levels as high as 27,640 milligrams per kilogram at locations behind the existing hangar building. This area is where discharges of cleaning fluids, solvents, degreasers, and airplane wash water drain onto the floor of the hangar building and then into the floor drain which discharges directly onto the ground in back of the building. Inspections of the drain discharge reveal considerable staining of soils to the rear of the building, and the YWC report concludes "the rear of the building is obviously contaminated with petroleum hydrocarbons and oil".

The YWC report points out other areas of potential contamination on Lot #3, including the on-site septic system and underground storage tanks. YWC determined that a tank on Lot #3 failed a tank tightness test. A similar test failure occurred for a heating fuel oil tank on the Kenyon parcel. It is not clear as a result of these tests whether such tanks were thereafter properly administered under Connecticut regulations, or if they could be a source of contamination. YWC's reports recommends that the tanks be retested, but it does not appear as though a retest was performed. Further, the YWC results of the tank tests were apparently not disclosed to TRC by the owners' representatives (George Gager) when it produced its site evaluations. In fact, the TRC report indicates that Mr. Gager represented to them that all tanks were tested by York Wastewater Company, Inc. in May 1987 and were "all found to be structurally sound within acceptable limits". This would not appear to be the conclusion that YWC has drawn.

3. 87.46 Acre Parcel

The initial scope of TRC reports appear to evaluate the "Land of Chester Airport, Inc Area = 87.46 Ac., as shown on Attachment 1. The TRC Phase II report concludes that groundwater flows in a northeasterly direction away from land of Chester Airport, Inc. on the east side of the airport runway.

Although TRC's Phase II report appears to expand its evaluation to the Kenyon parcel and Lot #3, neither parcel is

depicted on the TRC map nor discussed at length in the text of the report. As mentioned above, there is no evidence in the Phase II TRC report that off-site owners or operators of property east of the airport are impacting in any way the Chester Airport, Inc. property; rather the converse may be true due to the existence of motor oil type material in such area. The TRC Phase II report also included soil gas sampling points that indicate contamination or potential contamination behind the hangar, as confirmed by the YWC report. We note that one soil gas sample point (eighteen) behind the Kenyon Building indicates a low-level reading according to table one of the Phase II report. However, nowhere is the result mentioned in the document. It would appear then that no conclusions can be drawn regarding such soil gas survey point on the Kenyon parcel (See TRC Phase II report, p. 6, 10-11).

4. Kenyon Site Evaluation

A variety of tenants occupied and operated the Kenyon site from the early 1960's through at least 1991, as described above. Samples obtained from the Kenyon Building parcels' underground cement vault appear to contain mostly chlorinated hydrocarbons, although methanol and toluene appear in a sample taken prior to the tank being pumped out and resampled. It will be difficult to determine which owners and/or occupants of the Kenyon Building site could have contributed to the condition of the vaults' contents. Certainly the present owner and its prior operations cannot be discounted. However, this vault appears to be connected to a slop sink in the north end of the building--lower level. The septic tank servicing the site has yet to be sampled by DEP, and its location is described on Attachment 1.

An evaluation of the activity of Austin Electronics to date has revealed that it employed only limited use of chlorinated solvents on the site, and for only a period of approximately 18 months. As a matter of course, such material was regularly hauled away by EWR or its predecessors. No one contacted to date recalls using the slop sink. Moreover, all washing operating occurring on the site were discharged to the septic tank, as depicted above. Austin's internal investigation is continuing and records relating to the off-site shipment of such materials, and the cleaning out and pumpage of the septic tanks will be provided to you as they become available (if at all).

Our conversations with Roger Moore of Whelen indicate that in his conversations with you, he believed he was referring to the existing Whelen Engineering site located east of the airport runway. He has no knowledge of Austin Electronics

activities on the Kenyon Building parcel. Furthermore, reference in the file of a October 26, 1984 letter from DEP to address a discharge to a dry well is for the facility east of the runway, and it has been fully addressed to the satisfaction of DEP. Please note that such discharge never contained any chlorinated hydrocarbons of any kind.

Conclusions

It would appear that, at a minimum, DEP's evaluation of potential responsible parties would include the Cryodyne facility operator and property owner, as well as past operators and owners of such facility and parcel. Current and past owners and operators of the Lot #3 Airport Operations parcel, in light of the existing DEP file information, must also be evaluated, as well as the current owner and most recent operator of the Kenyon Building parcel. Past owners and operators of the Kenyon Building parcel must also be considered.

As for Austin Engineering, a past operator on the Kenyon Building parcel, we can safely say at this time that for so long as Austin was a subsidiary of Whelen Engineering Company, it only operated in a manner to prevent disposal or discharge on-site of any chlorinated hydrocarbons. Austin believes that it is not responsible for any chlorinated hydrocarbon contamination of any kind in the vicinity of the Kenyon parcel.

However, Austin Electronics is only now realizing the scope of DEP investigation and has only had a very brief period of time to evaluate the facts in the DEP file. Nevertheless, Austin remains committed to cooperating with the DEP in its investigation of the areas' well water supply.

We believe that a thorough investigation by DEP will result in an appropriate response by all potential responsible parties so that those parties may then work together to resolve the issues and ultimately deal effectively with remediating the area, if it becomes necessary. Should you have any questions, please do not hesitate to give me a call.

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

June 16, 1994

Mr. John Olson
President
Whelen Engineering Company
Route 145, Winthrop Road
Chester, CT 06412

Dear Mr. Olson:

Thank you for taking the time on June 8 to show me your property at Chester Airport, and for kindly addressing the concerns of contaminated wells in the area. I appreciate your proactive approach.

I have reviewed Atlantic Environmental Services' 1992 Environmental Assessment of the Chester Airport. Mention is made in a January 25, 1994 letter to your attorney, John Wertam, from Atlantic that additional groundwater sampling was conducted in December 1993. I need to review and evaluate the analysis of these 1993 samples as part of my assessment.

Regarding the 1984 documented discharge of wastewaters to the ground from your printed circuit flux washing operation at the Whelen Engineering facility west of the airport: I have searched CT DEP files and consulted with Ken Major the Supervising Sanitary Engineer here at CT DEP who handled this discharge matter. CT DEP has no record of resolution of this problem. Documentation is necessary, indicating how this wastewater is now handled. Additionally, has your company conducted any studies to determine if contamination occurred as a result of that discharge. Please provide me with any information you have pertaining to this discharge and its impact upon (resulting contamination) the Whelen Engineering property.

The issue of discharge by Austin Electric (a subsidiary of Whelen Engineering) at the now vacant Kenyon Building (east of the airport) comes into question. How was waste generated by Austin disposed of? The information in the CT DEP files and that obtained during our meeting June 8, 1994 is unclear and contradictory. Can you provided documentation of materials used by Austin, what wastes were generated, and how they were disposed of? Please provide me with an answer to each of these questions, and documentation:

- Were similar disposal practices utilized at Austin as at Whelen Engineering?
- Exactly what industrial processes occurred during Austin's occupation of the Kenyon Building?

Very truly yours,

John E. Wertam/kmb

John E. Wertam

JEW/kh

Enclosures

cc: John Olson
Stewart F. Kleinman, Esq.
Mr. Larry Gilliam, Town of Chester Sanitarium
Warren S. Randall, Esq.

8801R

- Particularly, what type of degreasing occurred (e.g., vapor, cold dip, parts washing, ultrasonic), and what types and quantities of material were used?

- Did Austin utilize printed circuit flux washing operations too?

- If so, then how was the waste stream discharge handled?

Without documentation and resolution of these questions I am unable to understand your role as a possible source of contamination in the area. Your cooperation in supplying this documentation would be of great assistance in my quest.

I would be most appreciative to receive this information by the end of this month, so that I can incorporate this information into my assessment of the area under the state and federal superfund programs. Do not hesitate to contact me at 203/566-7202 if you have any questions.

Sincerely,

John Robert Hirschfeld, M.Sc.
Environmental Analyst
Preremedial and Discovery Program
Permitting, Enforcement, and Remediation Division
Bureau of Water Management

Shipman & Goodwin
Counselors at Law

ONE AMERICAN ROW
HARTFORD, CT 06103-2819
TEL: (203) 251-5000

JOHN E. WERTAM
TEL: 251-5813
FAX: 251-5199

June 24, 1994

John Robert Hirschfeld
Environmental Analyst
Pre-Remedial and Discovery Program
Permitting, Enforcement and Remediation Division
Bureau of Water Management
Department of Environmental Protection
79 Elm Street
Hartford, Connecticut 06106

Re: Kenyon Parcel Investigation

Dear Mr. Hirschfeld:

Thank you so much for spending time with me today to discuss the issues raised by your letter of June 16, 1994. The questions in your letter require research into various files, and unfortunately I and others knowledgeable about the site will be unavailable for the next two weeks.

However, in the meantime, we will gather as much information as possible, and we propose to discuss such information with you at a meeting on Thursday, July 21 at 2:00 p.m., preferably in Chester so that issues relating to the on-site matters may be enhanced by observation.

At that time we will describe for you how Whelen Engineering has addressed every issue DEP has ever raised about its operations, and describe for you how we believe there to be no remaining issue of environmental concern.

As for the Austin Electronics involvement at the Kenyon parcel, we believe that the operations of such company did not contribute to the current environmental condition of that parcel. Nevertheless, we think it important that those people who actually worked in the building describe for you the activities occurring then, and what they know about the building's use and occupation before and after Austin's occupation.

It is with great concern that we address these issues and preserve the integrity of Whelen Engineering as an environmentally responsible and compliant company. Any

suggestion that Whelen or Austin is a possible source of contamination in the area is, we think, inappropriate, and we look forward to the opportunity to discuss these matters with you.

Please let my office or John Olson at Whelen Engineering (526-9504) know if the meeting on the 21st is confirmed.

Very truly yours,

John E. Wertam

JEW/kad

cc: John Olson
William G. Warzecha
Warren S. Randall

19080_1C.DOC:d3

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

June 16, 1994

Mr. John Olson
President
Whelen Engineering Company
Route 145, Winthrop Road
Chester, CT 06412

Dear Mr. Olson:

Thank you for taking the time on June 8 to show me your property at Chester Airport, and for kindly addressing the concerns of contaminated wells in the area. I appreciate your proactive approach.

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The issue of discharge by Austin Electric (a subsidiary of Whelen Engineering) at the now vacant Kenyon Building (east of the airport) comes into question. How was waste generated by Austin disposed of? The information in the CT DEP files and that obtained during our meeting June 8, 1994 is unclear and contradictory. Can you provided documentation of materials used by Austin, what wastes were generated, and how they were disposed of? Please provide me with an answer to each of these questions, and documentation:

- Were similar disposal practices utilized at Austin as at Whelen Engineering?
- Exactly what industrial processes occurred during Austin's occupation of the Kenyon Building?

- Particularly, what type of degreasing occurred (e.g., vapor, cold dip, parts washing, ultrasonic), and what types and quantities of material were used?

- Did Austin utilize printed circuit flux washing operations too?

- If so, then how was the waste stream discharge handled?

Without documentation and resolution of these questions I am unable to understand your role as a possible source of contamination in the area. Your cooperation in supplying this documentation would be of great assistance in my quest.

I would be most appreciative to receive this information by the end of this month, so that I can incorporate this information into my assessment of the area under the state and federal superfund programs. Do not hesitate to contact me at 203/566-7202 if you have any questions.

Sincerely,

John Robert Hirschfeld, M.Sc.
Environmental Analyst
Preremedial and Discovery Program
Permitting, Enforcement, and Remediation Division
Bureau of Water Management

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July 22, 1994

VIA HAND DELIVERY

Mr. John Robert Hirschfeld, M.Sc.
Environmental Analyst
Pre-Remedial and Discovery Program
Permitting, Enforcement and
Remediation Division
Bureau of Water Management
State of Connecticut
Department of Environmental Protection
79 Elm Street
Hartford, Connecticut 06106

Re: DEP Site Assessment, Kenyon Property, Chester, Connecticut

Dear Mr. Hirschfeld:

Thank you very much for providing Whelen Engineering Co. ("Whelen") with the opportunity to address certain questions as set forth in your letter of June 16, 1994. While we believe that neither Whelen nor Austin Electronics ("Austin") to be responsible for the conditions found at neighboring residential wells, we are concerned that, to the extent that Whelen remains a viable entity, it becomes an accessible target for agency inquiry. Nevertheless, we welcome such inquiry so that information placed in reports or in the public record is as accurate as possible.

The information we have to date we believe to be persuasive in making a determination that neither Austin or Whelen are responsible for any condition encountered at the Kenyon site, or elsewhere in the area. Regarding issues raised in your letter:

- 1984 Discharge Of Washwater At Whelen Facility.

In 1984, a DEP inspection occurred at the Whelen Engineering site located east of the Chester Airport. The inspector determined that the washwater from the Whelen facility contained small amounts of metals as a result of washing printed circuit boards in a commercial type dishwasher. Whelen was asked in 1984 to cease the discharge to an on-site septic system, which they

did in accordance with DEP directives. However, DEP files apparently do not reflect the termination of this discharge or any other information which indicates Whelen's full compliance with DEP regulations. The following summarizes for you the steps undertaken by Whelen following the DEP inspection:

According to John Olson, President of Whelen Engineering, Whelen worked closely with DEP to resolve the discharge issue. While DEP was not overly concerned by the discharge, because it went to a septic system in a "GA" classified groundwater area, it had to either receive pretreatment before discharge, or be transported off-site for disposal. Whelen retained Penfield, Inc. of Plantsville, Connecticut to develop a system to treat the washwater. With DEP approval, Whelen installed and used the equipment for a period of time, but maintenance and upkeep of it became prohibitively expensive. Whelen worked with DEP and obtained approval to discontinue use of the treatment option in favor of installing a 3,000 gallon underground fiberglass storage tank to collect the few gallons a day that are generated from the washwater effluent from the dishwasher. Periodically the tank is now pumped and, under contract with East Hampton municipal treatment system, the washwater is disposed of there. Attachment 1 is a copy of the notebook showing the dates the level of the tank is tested and emptied. Such practice continues today. We believe the practice to be an appropriate means of handling the material, and we are disappointed that neither at Whelen, or at DEP, a record of resolving this matter exists.

In addition to terminating the discharge, groundwater tests done by the DEP (for on site drains, pond and well), Environmental Science Corporation (for on-site drinking water well), and Atlantic Environmental Services (in connection with a site assessment for the Chester Airport) show that no contamination exists on or around the Whelen site. (Attachment 2) In particular:

- A sample of the well water at the facility taken by John Porter of the DEP on August 2, 1991 shows no detected hydrocarbons. (Attachment 2a)

- Further tests conducted by John Porter in 1991 and 1994 also indicate that no hydrocarbons were detected in the drains or on site ponds. (Attachment 2a)

- Since September of 1993, samples of the on-site well have been required by the State Department of Health. Attached are representative samples taken on September 14, 1993 and June 4, 1994, and neither these,

nor any samples taken on site for this purpose indicate the presence of hydrocarbons, or metals above drinking water standards. (Attachment 2b)

- Groundwater samples taken south of the Whelen site, in MW-1, MW-7 and MW-8 by Atlantic indicate the absence of any contaminants. (See Attachment 2c)

We believe the above results indicate contamination is not present on the Whelen site. Furthermore, since the discharge was discontinued to the septic system, the septic tank has been pumped at least annually, and the leach field repaired (such repair wholly unrelated to the terminated discharge), with no evidence of residual contamination evident. Any connection or reference of this site to groundwater contamination is therefore without merit.

- Kenyon Building Site.

There appears to be some confusion regarding the use of the Kenyon Building, particularly by Austin Electronics. At least as to Austin's use and occupancy of the building from 1976 to 1984[1], we have no information to suggest that any chlorinated solvents were discharged by Austin. Please note that the process of building circuit boards at Austin was almost completely done by hand and was very labor-intensive. Austin did not depend on any equipment or machinery for this process; the only machinery used by Austin was a drill press.

Attachment 3 is an excerpt from a letter to William Warzecha at DEP describing the other occupants or operator-tenants who used the Kenyon Building. In particular, please note that subsequent to the occupancy of Austin, a machine shop and graphic arts operation existed in the building with access to all discharge points, including a slop sink area which was apparently tested by DEP and found to be connected to a cement cistern located along the side of the building. Finally, please be aware that from 1960 to at least 1991, every company located within the Kenyon Building, with the exception of Austin Electronics, depended heavily upon the use of machinery and likely used solvents in their production process.

However, for a brief period of time while Austin was a subsidiary of Whelen, a small degreasing operation was used to clean circuit boards on site. It was located on the upper floor

[1]Reference to Austin in this response is limited to Austin's use and occupancy of the Kenyon Building from 1976 until it moved from the building in 1984, as Austin only became a subsidiary of Whelen beginning in 1976.

in a "clean" room, with no sinks, floor drains or vents fro room. Any recycling or disposal of the spent material from operation was performed off-site by a licensed hauler. No site disposal of any such material occurred. Conversion to water-soluble flux system was made around 1979 allowing Aus begin washing the printed circuit boards in a conventional dishwasher. Approximately 10 to 20 gallons a week of dishw effluent thereafter was discharged to a septic system locat behind the facility (a discharge point we believe to be dif from the above-mentioned cement cistern). The expected qua of this effluent is described below and contains no chlorin solvents. This was the only known point of discharge from manufacturing area (along with sanitary sewage) during the occupation of Austin of the Kenyon Building. Another poten discharge point, a slop sink on the lower level of the buil and apparently connected to a cement cistern at the side of building, was never used by Austin, as described below. To best of our knowledge, the septic system was apparently nev located or tested by DEP.

With the foregoing introduction, we now turn to the sp questions raised by your June 16, 1994 letter:

Were similar disposal practices utilized at Austin as Whelen?

From 1976 to 1979± degreasing was utilized on site to circuit boards. Spent material from the operation was transported off site for recycling or disposal: no dischar occurred on-site. The degreasing occurred on the upper lev a "clean" room without sinks, floor drains, or other points potential discharge. From 1979 to 1984 a water wash proces utilizing a dishwasher, was employed at the facility to cle circuit boards, and disposal of the effluent (10 to 20 gall per week) occurred to an on-site septic system. A similar wash operation with effluent disposal occurred at Whelen fr 1984 to 1987 when, as described above, it was terminated at request. As described below, MSDS's of possible material : Whelen's washwater (which, while shipped off site now, and greater volumes, could be expected to be similar to Austin discharge from 1979 to 1984) contain only alcohol based pro none of which have been detected in residential wells in th area.

Moreover, Austin, due to the number of employees at it facility, pumped the Kenyon septic tank at least 3 to 4 tir year, and had it pumped just before terminating its occupar

Did Austin utilize printed circuit flux washing operations too?

As discussed above, Austin initially washed the printed circuit boards with solvent containing 1,1,1 trichloroethane. The solvents were used in small amounts between 1976 and 1979, thereafter Austin switched to a water washing operation.

If so, then how was the waste stream discharged handled?

During the time that the chlorinated solvents were being used, they were shipped off site for recycling or disposal. Approximately 100 gallons per year was collected and removed from site by a licensed hauler. After the dishwasher was installed (1979±) to wash the printed circuit boards, the effluent (approximately 10 to 20 gallons per week) was directed to the on-site septic system. We believe this septic system to be separate from the cement cistern which DEP has previously sampled.

The information we have provided is to the best of our knowledge. We hope you will find this information adequate to determine that the Whelen site is clean, and that Austin is not responsible for the environmental condition being found at the Kenyon parcel. Should you have any questions, please do not hesitate to contact us.

Very truly yours,

John E. Wartam

John E. Wartam

I have read and agree to the contents of this response.

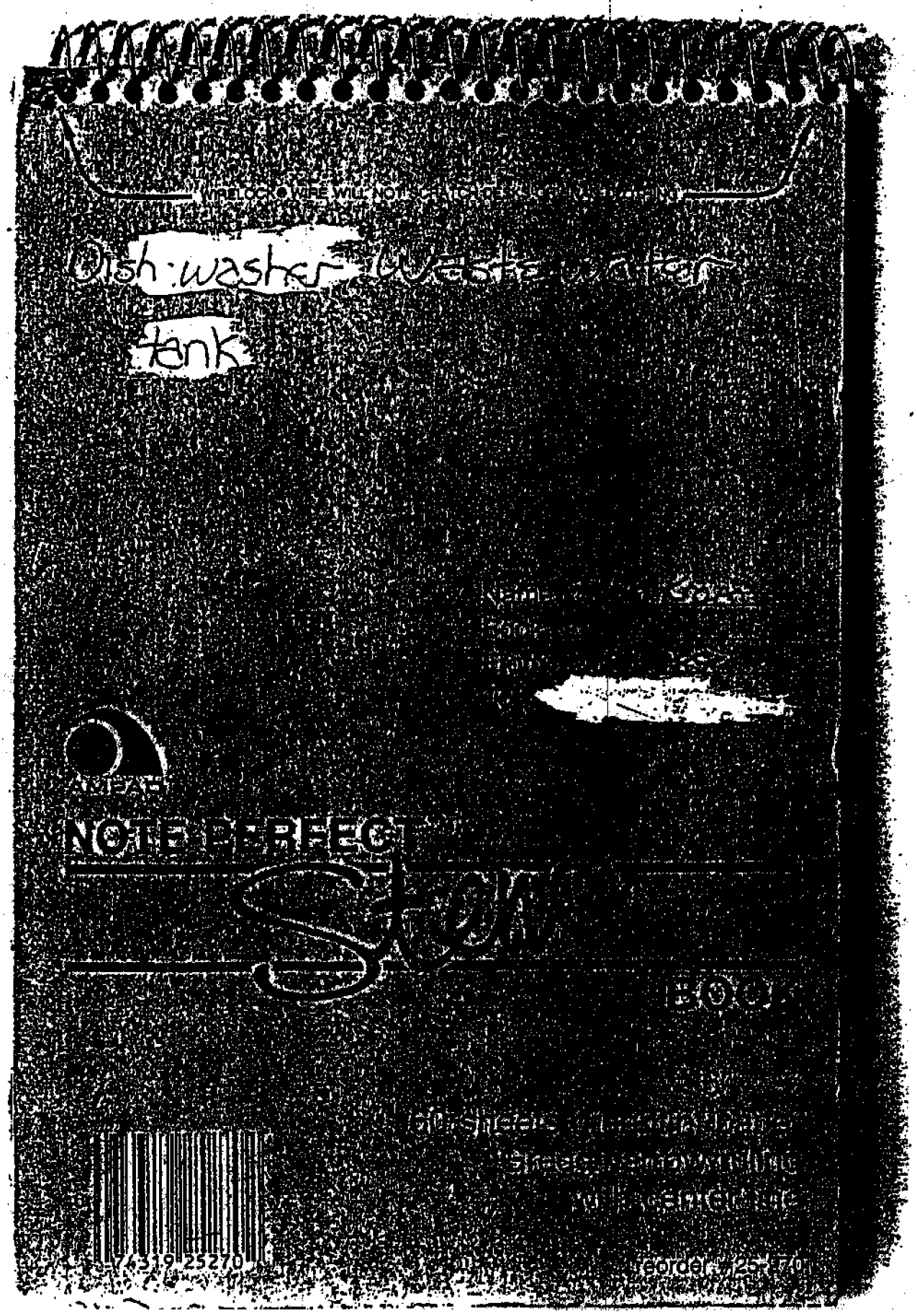
John F. Olson, President
Whelen Engineering

cc: William Warzecha, DEP (w/encl.)

Attachment 1

Whelen Dishwasher Washwater Tank

Tank Level and Content Removal Log


Dish: washer
tank

9 weeks		Waste tank
Dec 5, 1989	24½"	
Dec 8, 1989	25½	
Dec 12, 1989	31½	
Dec 18, 1989		Tank emptied
Jan 2, 1990	6.5	
Jan 8, 1990	8.5	
Jan 11, 1990	11	
Jan 16, 1990	13	
Jan 18, 1990	15	
Jan 24, 1990	17	
Feb. 1, 1990	21½	
Feb 5, 1990	22	
Feb. 8, 1990	23	
Feb. 13, 1990	25½	
Feb 19, 1990	31½	
Feb 20, 1990		Empty tank
Mar 14, 1990	14"	
Mar. 27, 1990	19½	
April 24, 90	28"	
May 3, 90	33½	
May 15, 90	36"	
May 29, 90	42"	
June 4, 90	45"	

June 7	45½"
June 12	47"
June 15	48" Tank got emptied
June 23	10"
June 27	11½
July 17	25"
Aug 10	37½"
Aug 24	38"
Aug 27	39½
Aug 29	40
Aug 30	46 Tank got emptied
Sept 25	15"
Oct 12	20½"
NOV 6	28"
Dec 3	37"
Dec 20	Empty tank
Jan 25	15½
Feb. 15	35"
Feb 20	Empty tank
April 4	35"
April 7	38"
May 1	48"
July 12	52"
July 22	Empty tank

July 24, 91	31.5'
Aug 9, 91	45'
Aug 26, 91	Empty tank
Sept 18, 91	25½"
Oct 2, 91	48½
Oct 9, 91	Empty tank
Nov 6, 91	2½
Dec 4, 91	44½
Jan 6, 92	17½
Jan 20, 92	26½
Jan 31, 92	33½
February 3, 92	Empty tank
March 6 92	29½"
April 1, 92	46½"
April 8, 92	Empty tank
May 6, 92	3'
May 15, 92	38½
June 2 92	45½ empty tank
June 23, 92	23"
July 1, 92	30½"
Aug. 18/92	32½ EMPTY TANK
Sept. 10/92	45½ EMPTY TANK
Nov. 20/92	PUMPED ½ TANK
Dec 4/92	EMPTY TANK

JAN. 20TH 1993		40"	33 DAYS
JAN. 26TH 1993		48"	
JAN. 27TH 1993	①	EMPTY TANK	
MARCH 30TH	②	EMPTY TANK	
APRIL 2ND		9"	
MAY 12TH		42"	34 DAYS
MAY 24TH		51½"	46
MAY 26TH	③	EMPTY TANK	
JULY 30TH		60" CALLED TO EMPTY	
SEPT. 13TH	④	64½" CALLED TO EMPTY	
SEPT. 16TH		19½"	
OCT. 19TH		"64" CALLED TO EMPTY	
OCT. 22ND		FULL to top	
OCT. 25TH	⑤	PUMPED	
OCT. 28TH	⑥	EMPTY	
NOV. 17TH		31½"	
NOV. 30TH		39½	
DEC. 7TH CALLED	⑦	50 EMPTIED	
DEC. 22ND		24	
JAN. 3RD	⑧	38" CALLED - PUMPED	
FEB. 16TH		PUMP TANK 0"	
MAR. 21ND		40"	
APRIL 5TH		55" CALLED TO EMPTY	
MAY 5TH		38"	

MAY 23rd	49½" called to empty
MAY 24th	Empty
JUNE 13th	28"

CERTIFIED COPY OF AN
ORIGINAL RECORD

We certify this reproduction
to be a true copy of the
original record.

New England Archives Center, Inc.
624 Hampden St., Holyoke, Mass.

Attachment 2

Water Samples at Whelen Site

Attachment 2a

Samples of Drains, On-Site Water Supply and Pond Taken by DEP 8/2/91 and 2/3/94

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FAX TRANSMITTAL

Pesticide, PCB, UST & Marine Terminal Management Division
Waste Management Bureau
Connecticut Department of Environmental Protection
79 Elm Street
P.O. Box 5066
Hartford, CT 06102-5066

Date: 2 March 94 Time: 0815

To: Roger Moore Director Safety, Maintenance, Facilities

Company: Valbelen Engineering

FAX Number: 526-4078

Number of pages (including cover sheet): 8

Sender: JOHN PORTER

Special instructions: 3 Samples are all None Detected, call me if you have any questions

JOHN

Transmitting from an:

FAX Number: (203) 566-4379

Office Number: (203) [redacted] 566-5762

IF ANY PROBLEMS OCCUR DURING TRANSMITTAL, PLEASE CALL PESTICIDE MANAGEMENT.

Greg Piontek, Director
D.E.P. Pesticides, PCB, Underground Tank & Terminal Programs
79 Elm St. Hartford, Ct. 06106-5127

om John Porter, ERC
D.E.P. Terminal Program Inspector
79 Elm St. Hartford, Ct. 06106-5127

March 94

ubject: Sampling conducted at Whelen Engineering 3 Feb. 94

On 3 Feb. 94 I was assigned an equipment modification/repair at Whelen ngineering on Winthrop Rd., Chester, Ct. by the Equipment & Safety Officers f the Oil & Chemical Spill Response Division. The purpose of this appointment as to install halogen bulbs and a yellow lens into my assigned Whelen Light ar. While I was in the service area of Whelen I was approached by Roger Moore irector of Safety, Maintenance & Facilities for Whelen Engineering. Mr. Moore sked me if I could take three random samples hydro-carbon samples as a follow to samples that were taken about 1 year ago, based on an original complaint - 3 years ago that stated that Whelen Enginnering believed that hydro-carbon ontamination might be migrating onto their property from the adjoining roperty the Chester Airport. The 3 samples were taken with the same references f the previous round of sampling, based on the results of these sampling howing "NONE DETECTED" further sampling will not be required.

: Brian Coss

STATE OF CONNECTICUT
Dept. of Public Health and Addiction Services
Bureau of Laboratories
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

ID 1 | AGE 0 | S | PA

CHESTERFIELD RD

DEP OIL AND CHEMICAL SPILLS
FOURTH FLOOR
79 ELM STREET
HARTFORD CT 06106

COLLECTED	RECEIVED	REPORTED
02/03/94 09:30	02/03/94 12:45	02/22/ 14:18

FINAL REPORT

TEST(S)	RESULT(S)	COMMENT

SAMPLE OF:
NAME OF TREATMENT PLANT: MISC.
COLLECTED BY JOHN PORTER TITLE: INSPECTOR
DATE SHIPPED: / / COMPOSITE: NO
NO. & KIND OF BOTTLE: 3BB

*
EADSPACE FID/FID
PA METHOD 624

METHOD PERFORMED ON 2/7/94 NONE DETECTED

LIST OF COMPONENTS WITH THEIR RESPECTIVE MDL'S FOR METHOD EPA 624 PERFORMED AT DHS HYDROCARBON LABORATORES

1,1-DICHLOROETHYLENE	2.2 UG/L
METHYLENE CHLORIDE	1.0 UG/L
T-1,2-DICHLOROETHYLENE	1.3 UG/L
1,1-DICHLOROETHANE	1.1 UG/L
C-1,2-DICRLOROETHYLENE	0.5 UG/L
CHLOROFORM	0.8 UG/L
1,1,1-TRICHLOROETHANE	0.6 UG/L
1,2-DICHLOROETHANE	0.5 UG/L
BENZENE	0.7 UG/L
TRICHLOROETHYLENE	0.8 UG/L
1,2-DICHLOROPROPANE	0.4 UG/L
BROMODICHLOROMETHANE	0.5 UG/L
TOLUENE	0.4 UG/L
1,1,2-TRICHLOROETHANE	0.4 UG/L
TETRACHLOROETHYLENE	0.4 UG/L
CHLORODIBROMOMETHANE	0.4 UG/L
1,2-DIBROMOETHANE	0.5 UG/L
ETHYLBENZENE	0.5 UG/L
M-XYLENE	0.5 UG/L
O-XYLENE	0.3 UG/L
CUMENE	0.5 UG/L
BROMOFORM	1.0 UG/L
1,1,2,2-TETRACHLOROETHANE	1.0 UG/L
N-PROPYLBENZENE	0.6 UG/L
1,3,5-TRIMETHYLBENZENE	0.4 UG/L
1,2,5-TRIMETHYLBENZENE	0.6 UG/L
P-DICHLOROBENZENE	0.3 UG/L
O-DICHLOROBENZENE	0.3 UG/L

STATE OF CONNECTICUT
Dept. of Public Health and Addiction Services
Bureau of Laboratories
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

I.D.	ACCESSION NO.	ACCOUNT NO.	AGE	S	PAG
1	16093253	A01010	0		

INFORMATION

MISC.
W.E./WINTHROP RD

CHESTER

DEP OIL AND CHEMICAL SPILLS
FOURTH FLOOR
79 ELM STREET
HARTFORD CT 06106

COLLECTED	RECEIVED	REPORTED
02/03/94 09:30	02/03/94 12:45	02/22/9 14:18

PORT FINAL REPORT

COMMENT

TEST(S)	RESULT(S)	
1,2-DIBROMO-3-CHLOROPROPANE	0.7	UG/L
HEXACHLOROBUTADIENE	1.0	UG/L
NAPTHALENE	0.2	UG/L
ACETONE	75	UG/L
METHYL TERTBUTYL ETHER	3.0	UG/L
METHYL ETHYL KETONE	45	UG/L
TETRAHYDROFURAN	100	UG/L
METHYL ISOBUTYL KETONE	70	UG/L
1,2,4-TRICHLOROBENZENE	0.5	UG/L

MDL'S WERE CALCULATED USING VOC CLEAN WATER AND OBTAINED ON 03/91 AND 03/92. IT SHOULD BE NOTED THAT MDL'S ARRIVED AT THIS WAY REPRESENT AN IDEAL AND CAN BE HIGHER WITH MORE COMPLEX MATRICES AND MSD VARIATIONS.

STATE OF CONNECTICUT
Dept. of Public Health and Addiction Services
Bureau of Laboratories
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

I.D.	ACCESSION NO.	ACCOUNT NO.	AGE	S	PA
2	16098254	#01010	0		

INFORMATION

MISC.
W.E./WINTHROP RD

CHESTER

DEP OIL AND CHEMICAL SPILLS
FOURTH FLOOR
79 ELM STREET
HARTFORD CT 06106

COLLECTED	RECEIVED	REPORTED
02/03/94 09:40	02/03/94 12:45	02/22/ 14:18

REPORT FINAL REPORT COMMENT

TEST(S) RESULT(S)

SAMPLE OF:
NAME OF TREATMENT PLANT: MISC.
COLLECTED BY JOHN PORTER TITLE: INSPECTOR
DATE SHIPPED: / / COMPOSITE: NO
NO. & KIND OF BOTTLE: 39B

*
EADSPACE FID/FID
PA METHOD 624

METHOD PERFORMED ON 2/7/94 NONE DETECTED

LIST OF COMPONENTS WITH THEIR RESPECTIVE MDL'S FOR
METHOD EPA 624 PERFORMED AT DHS HYDROCARBON LABORATORES

1,1-DICHLOROETHYLENE	2.2 UG/L
METHYLENE CHLORIDE	1.0 UG/L
T-1,2-DICHLOROETHYLENE	1.3 UG/L
1,1-DICHLOROETHANE	1.1 UG/L
C-T,2-DICHLOROETHYLENE	0.5 UG/L
CHLOROFORM	0.8 UG/L
1,1,1-TRICHLOROETHANE	0.6 UG/L
1,2-DICHLOROETHANE	0.5 UG/L
BENZENE	0.7 UG/L
TRICHLOROETHYLENE	0.8 UG/L
1,2-DICHLOROPROPANE	0.4 UG/L
BROMODICHLOROMETHANE	0.5 UG/L
TOLUENE	0.4 UG/L
1,1,2-TRICHLOROETHANE	0.4 UG/L
TETRACHLOROETHYLENE	0.4 UG/L
CHLORODIBROMOMETHANE	0.4 UG/L
1,2-DIBROMOETHANE	0.5 UG/L
ETHYLBENZENE	0.5 UG/L
M-XYLENE	0.5 UG/L
O-XYLENE	0.3 UG/L
CUMENE	0.5 UG/L
BROMOFORM	1.0 UG/L
1,1,2,2-TETRACHLOROETHANE	1.0 UG/L
N-PROPYLBENZENE	0.6 UG/L
1,3,5-TRIMETHYLBENZENE	0.4 UG/L
1,2,4-TRIMENTYLBENZENE	0.6 UG/L
P-DICHLOROBENZENE	0.3 UG/L
O-DICHLOROBENZENE	0.3 UG/L

STATE OF CONNECTICUT
Dept. of Public Health and Addiction Services
Bureau of Laboratories
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

I.D.	ACCESSION NO.	ACCOUNT NO.	AGE	S	PA
2	16098254	A01010	0		

INFORMATION

MISC.
W.E./WINTHROP RD

CHESTER

DEP OIL AND CHEMICAL SPILLS
FOURTH FLOOR
79 ELM STREET
HARTFORD CT 06106

COLLECTED	RECEIVED	REPORTED
02/03/94 09:40	02/03/94 12:45	02/22/ 14:18

PORT FINAL REPORT

COMMENT

TEST(S)	RESULT(S)	
1,2-DIBROMO-3-CHLOROPROPANE	0.7	UG/L
HEXACHLOROBUTADIENE	1.0	UG/L
NAPTHALENE	0.2	UG/L
ACETONE	75	UG/L
METHYL TERTBUTYL ETHER	3.0	UG/L
METHYL ETHYL KETONE	45	UG/L
TETRAHYDROFURAN	100	UG/L
METHYL ISOBUTYL KETONE	70	UG/L
1,2,4-TRICHLOROBENZENE	0.5	UG/L

MDL'S WERE CALCULATED USING VOC CLEAN WATER AND OBTAINED ON 03/91 AND 03/92. IT SHOULD BE NOTED THAT MDL'S ARRIVED AT THIS WAY REPRESENT AN IDEAL AND CAN BE HIGHER WITH MORE COMPLEX MATRICES AND MSD VARIATIONS.

STATE OF CONNECTICUT
Dept. of Public Health and Addiction Services
Bureau of Laboratories
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

I.D.	ACCESSION NO.	ACCOUNT NO.	AGE	S	P
3	16098255	A01010	0		

INFORMATION

MISC.
W.E./WINTHROP RD

CHESTER

DEP OIL AND CHEMICAL SPILLS
FOURTH FLOOR
79 ELM STREET
HARTFORD CT 06106

COLLECTED	RECEIVED	REPORTED
02/03/94 09:50	02/03/94 12:45	02/22/ 14:18

REPORT: FINAL REPORT

COMMENT

TEST(S)	RESULT(S)

SAMPLE OF:
NAME OF TREATMENT PLANT: MISC.
COLLECTED BY JOHN PORTER TITLE: INSPECTOR
DATE SHIPPED: / / COMPOSITE: NO
NO. & KIND OF BOTTLE: 39B

**
HEADSPACE FID/FID
EPA METHOD 624

METHOD PERFORMED ON 2/17/94 NONE DETECTED

LIST OF COMPONENTS WITH THEIR RESPECTIVE MDL*S FOR
METHOD EPA 624 PERFORMED AT DHS HYDROCARBON LABORATORES

1,1-DICHLOROETHYLENE	2.2 UG/L
METHYLENE CHLORIDE	1.0 UG/L
T-1,2-DICHLOROETHYLENE	1.3 UG/L
1,1-DICHLOROETHANE	1.1 UG/L
C-1,2-DICHLOROETHYLENE	0.5 UG/L
CHLOROFORM	0.8 UG/L
1,1,1-TRICHLOROETHANE	0.6 UG/L
1,2-DICHLOROETHANE	0.5 UG/L
BENZENE	0.7 UG/L
TRICHLOROETHYLENE	0.8 UG/L
1,2-DICHLOROPROPANE	0.4 UG/L
BROMODICHLOROMETHANE	0.5 UG/L
TOLUENE	0.4 UG/L
1,1,2-TRICHLOROETHANE	0.4 UG/L
TETRACHLOROETHYLENE	0.4 UG/L
CHLORODIBROMOMETHANE	0.4 UG/L
1,2-DIBROMOETHANE	0.5 UG/L
ETHYLBENZENE	0.5 UG/L
M-XYLENE	0.5 UG/L
O-XYLENE	0.3 UG/L
CUMENE	0.5 UG/L
BROMOFORM	1.0 UG/L
1,1,2,2-TETRACHLOROETHANE	1.0 UG/L
N-PROPYLBENZENE	0.6 UG/L
1,3,5-TRIMETHYLBENZENE	0.4 UG/L
1,2,4-TRIMENTYLBENZENE	0.6 UG/L
P-DICHLOROBENZENE	0.3 UG/L
O-DICHLOROBENZENE	0.3 UG/L

RECEIVED
MAR 1 1994
Waste Management Bureau
Oil & Chemical Spill
Response Division

STATE OF CONNECTICUT
Dept. of Public Health and Addiction Services
Bureau of Laboratories
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

I.D.	ACCESSION NO.	ACCOUNT NO.	AGE	S	PA
3	16098255	A01010	0		

INFORMATION

MISC.
W.E./WINTHRCP RO

CHESTER

DEP OIL AND CHEMICAL SPILLS
FOURTH FLOOR
79 ELM STREET
HARTFORD CT 06106

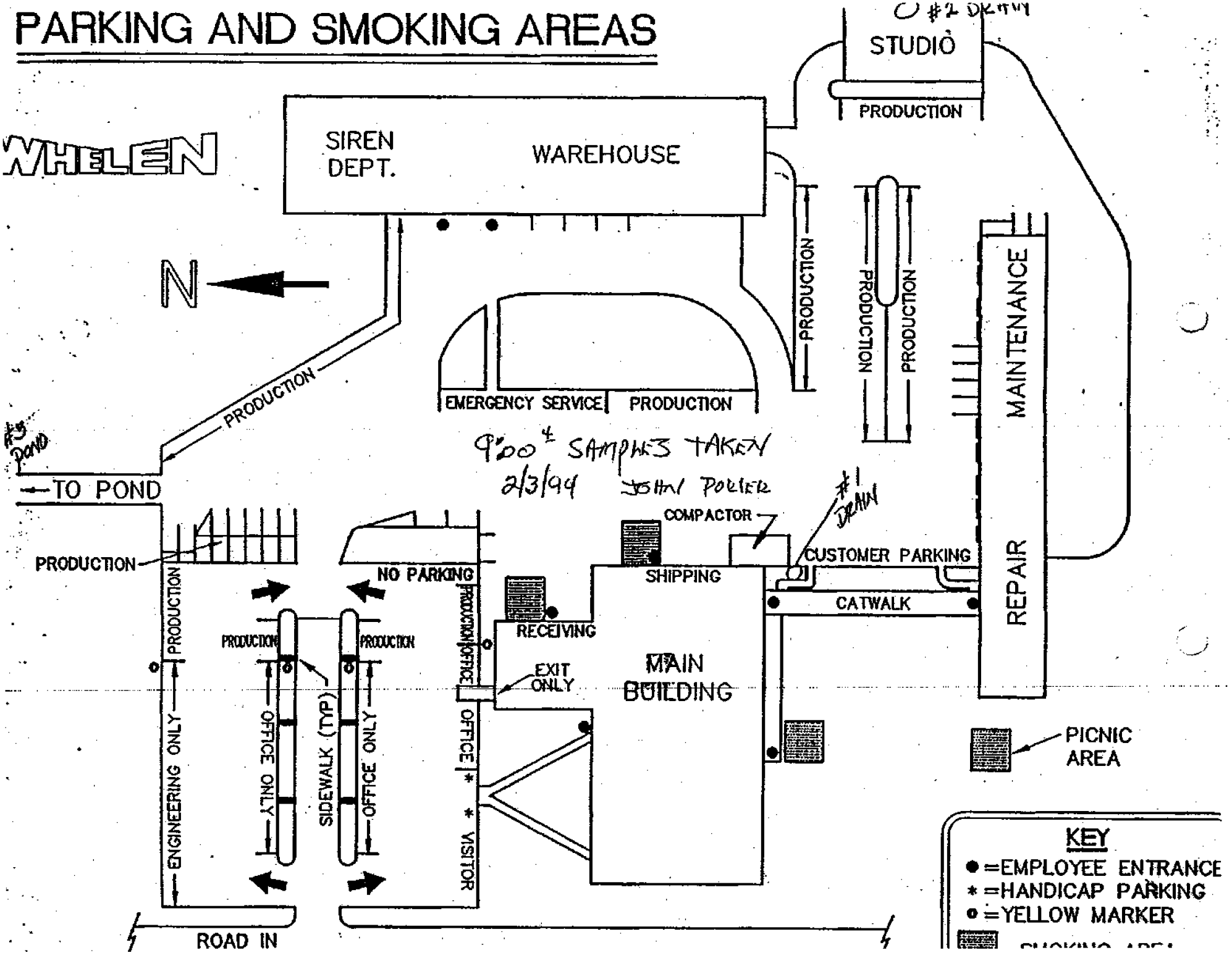
COLLECTED	RECEIVED	REPORTED
02/03/94 09:50	02/03/94 12:45	02/22/9 14:18

ORT FINAL REPORT COMMENTS

TEST(S)	RESULT(S)	
1,2-DIBROMO-3-CHLOROPROPANE	0.7	UG/L
HEXACHLOROBUTADIENE	1.0	UG/L
NAPTHALENE	0.2	UG/L
ACETONE	75	UG/L
METHYL TERTBUTYL ETHER	3.0	UG/L
METHYL ETHYL KETONE	45	UG/L
TETRAHYDROFURAN	100	UG/L
METHYL ISOBUTYL KETONE	70	UG/L
1,2,4-TRICHLOROBENZENE	0.5	UG/L

MDL'S WERE CALCULATED USING VOC CLEAN WATER AND OBTAINED ON 03/91 AND 03/92. IT SHOULD BE NOTED THAT MDL'S ARRIVED AT THIS WAY REPRESENT AN IDEAL AND CAN BE HIGHER WITH MORE COMPLEX MATRICES AND MSD VARIATIONS.

PARKING AND SMOKING AREAS



STATE OF CONNECTICUT

Department of Health Services
Laboratory Division
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

TRADE WASTE
DEP OIL AND CHEMICAL SPILLS
165 CAPITAL AVE.

HARTFORD CT 06106

I.D.	ACCESSION NO.	ACCOUNT NO.	ROU
NR:D-1022	16089440	A01010	

INFORMATION

CHESTER
JOHN PORTER

CHESTER

COLLECTED	RECEIVED	REPOR
08/02/91 10:25	08/02/9 14:38	08/0 11:

REPORT: FINAL REPORT

COMMENT: Well ~~DRAIN~~ WATER

TEST	RESULT	ACCEPTABLE RANGE	LOW	ACCEPTABLE RAN

***
(SAMPLE OF: RUNOFF)
(COLLECTED BY: JOHN PORTER TITLE: INSPECTOR)
(COMPOSITE: NO)
(NO. & KIND OF BOTTLES: BROWN BOTTLE)

***
(HYDROCARBON SIGMA 2000 FID)
(NONE DETECTED)
*** THIS IS A FINAL REPORT. ***

RECEIVED
AUG 09 1991
Waste Management Bureau
Oil & Chemical Spill
Response Division

STATE OF CONNECTICUT
Department of Health Services
Laboratory Division
10 Clinton St.
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5063

TRADE WASTE
DEP OIL AND CHEMICAL SPILLS
165 CAPITAL AVE.

HARTFORD CT 06106

I.D.	ACCESSION NO.	ACCOUNT NO.
NR:0-1023	16089441.	A01010

INFORMATION
CHESTER
JOHN PORTER

CHESTER

COLLECTED	RECEIVED	REPO
08/02/91 10:30	08/02/ 14:	08/0 11:

REPORT: FINAL REPORT

COMMENT: POND WATER

TEST	RESULT	ACCEPTABLE RANGE	LOW	ACCEPTABLE RA

***
(SAMPLE OF: RUNOFF)
(COLLECTED BY: JOHN PORTER TITLE: INSPECTOR)
(COMPOSITE: NO)
(NO. & KIND OF BOTTLES: BROWN BOTTLE)

***
(HYDROCARBON SIGMA 2000 FID)
(NONE DETECTED)
*** THIS IS A FINAL REPORT.***

RECEIVED
AUG 09 1991
Waste Management Bureau
Oil & Chemical Spill
Response Division

STATE OF CONNECTICUT
Department of Health Services
Laboratory Division
10 Clinton St
P.O. Box 1689
Hartford, CT 06144
TELEPHONE: (203) 566-5963

I.D.	ACCESSION NO.	ACCOUNT NO.	ROUT
NR:0-1024	16089442	A01010	

INFORMATION

CHESTER
JOHN PORTER

CHESTER

TRADE WASTE
DEP OIL AND CHEMICAL SPILLS
165 CAPITAL AVE.

HARTFORD CT 06106

COLLECTED	RECEIVED	REPORT
08/02/91 10:35	08/02/91 14:38	08/06 11:

REPORT: FINAL REPORT

COMMENT: STORMDRAIN WATER

TEST	RESULT	ACCEPTABLE RANGE	LOW	ACCEPTABLE RANGE	HI

***
(SAMPLE OF: RUNOFF)
(COLLECTED BY: JOHN PORTER TITLE: INSPECTOR)
(COMPOSITE: NO)
(NO. & KIND OF BOTTLES: BROWN BOTTLE)

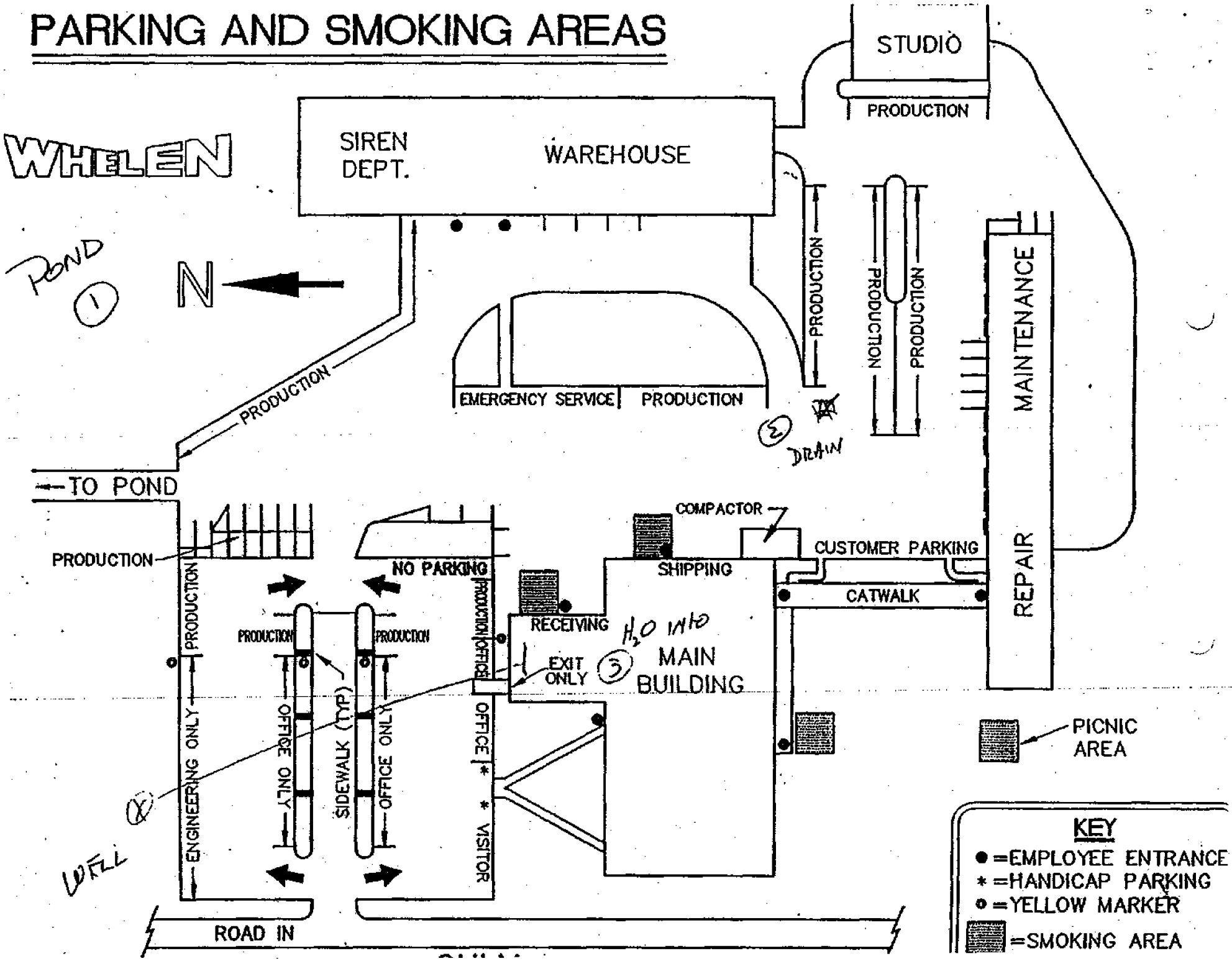
***
(HYDROCARBON SIGMA 2000 FID)
(NONE DETECTED)

*** THIS IS A FINAL REPORT. ***

7/17

RECEIVED
AUG 09 1991
Waste Management Bureau
Oil & Chemical Spill
Response Division

PARKING AND SMOKING AREAS



Attachment 2b

Representative Samples of On-Site Well Water
dated 9/14/93 and 6/4/94

ENVIRONMENTAL SCIENCE CORPORATION
362 Industrial Park Rd.
Middletown, CT 06457
(203) 632-0600, FAX (203) 632-7743

LABORATORY REPORT

LAB. REPORT NO.
C-13507

State Certification No. PH-0476
EPA Number CT013

CLIENT

Mr. Roger A. Moore
Whelen Engineering Co.
Route 145
Chester, CT 06412

DATE RECEIVED	09/14/93
PURCHASE ORDER NO.	246323
CLIENT I.D.	COMM-1993
CLIENT PROJECT NO.	
TELEPHONE NO.	526-9504

PHASE II & V REGULATIONS

SAMPLE ID: OUT. SPIGOT
LOCATION: CHESTER, CT
TYPE: AQUEOUS
DATE: 09/14/93

** TEST ** (ALL UNITS ARE PPB)	
** METHOD 502.2	
cis 1,3 Dichloropropene	<0.5
trans 1,3-Dichloropropene	<0.5
Benzene	<0.5
Bromobenzene	<0.5
Bromochloromethane	<0.5
Bromodichloromethane	<0.5
Bromoform	<0.5
Bromomethane	<0.5
n-Butylbenzene	<0.5
sec-Butylbenzene	<0.5
tert-Butylbenzene	<0.5
Carbon Tetrachloride	<0.5
Chlorobenzene	<0.5
Chloroethane	<0.5
Chloroform	<0.5
Chloromethane	<0.5
2-Chlorotoluene	<0.5
4-Chlorotoluene	<0.5
Dibromochloromethane	<0.5
1,2-Dibromo-3-Chloropropane	<0.5
1,2-Dibromoethane	<0.5
Dibromomethane	<0.5
1,2-Dichlorobenzene	<0.5
1,3-Dichlorobenzene	<0.5
1,4-Dichlorobenzene	<0.5

< - Below Minimum Detectable Level

Samples taken by ESC staff
1 1/2 hrs. sampling time

09/30/93

LABORATORY DIRECTOR

ENVIRONMENTAL SCIENCE CORPORATION
362 Industrial Park Rd.
Middletown, CT 06457
(203) 632-0600, FAX (203) 632-7743

LABORATORY REPORT

LAB. REPORT NO.
C-13507

State Certification No. PH-0476
EPA Number CT013

CLIENT

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Route 145
Chester, CT 06412

DATE RECEIVED	09/14/93
PURCHASE ORDER NO.	246323
CLIENT I.D.	COMM-1993
CLIENT PROJECT NO.	
TELEPHONE NO.	526-9504

PHASE II & V REGULATIONS

SAMPLE ID: OUT. SPIGOT
LOCATION: CHESTER, CT
TYPE: AQUEOUS
DATE: 09/14/93

** TEST ** (ALL UNITS ARE PPB)	
METHOD 502.2 (continued)	
Dichlorodifluoromethane	<0.5
1,1-Dichloroethane	<0.5
1,2-Dichloroethane	<0.5
1,1-Dichloroethene	<0.5
cis-1,2-Dichloroethene	<0.5
trans-1,2-Dichloroethene	<0.5
1,2-Dichloropropane	<0.5
1,3-Dichloropropane	<0.5
2,2-Dichloropropane	<0.5
1,1-Dichloropropene	<0.5
Ethylbenzene	<0.5
Hexachlorobutadiene	<0.5
Isopropylbenzene	<0.5
Methylene Chloride	<0.5
Naphthalene	<0.5
n-Propylbenzene	<0.5
Styrene	<0.5
1,1,1,2-Tetrachloroethane	<0.5
1,1,2,2-Tetrachloroethane	<0.5
Tetrachloroethene	<0.5
Toluene	<0.5
1,2,3-Trichlorobenzene	<0.5
1,2,4-Trichlorobenzene	<0.5
1,1,1-Trichloroethane	<0.5
1,1,2-Trichloroethane	<0.5

< - Below Minimum Detectable Level

Samples taken by ESC staff
1 1/2 hrs. sampling time

09/30/93

Thomas J. McGlynn

ENVIRONMENTAL SCIENCE CORPORATION
362 Industrial Park Rd.
Middletown, CT 06457
(203) 632-0600, FAX (203) 632-7743

LABORATORY REPORT

LAB. REPORT NO.
C-13507

State Certification No. PH-0476
EPA Number CT013

CLIENT

Mr. Roger A. Moore
Whelen Engineering Co.
Route 145
Chester, CT 06412

DATE RECEIVED	09/14/93
PURCHASE ORDER NO.	246323
CLIENT I.D.	COMM-1993
CLIENT PROJECT NO.	
TELEPHONE NO.	526-9504

PHASE II & V REGULATIONS

SAMPLE ID: OUT. SPIGOT
LOCATION: CHESTER, CT
TYPE: AQUEOUS
DATE: 09/14/93

** TEST **	(ALL UNITS ARE PPB)
METHOD 502.2 (continued)	
Trichloroethene	<0.5
Trichlorofluoromethane	<0.5
1,2,3-Trichloropropane	<0.5
1,2,4-Trimethylbenzene	<0.5
1,3,5-Trimethylbenzene	<0.5
Vinyl Chloride	<0.5
o-Xylene	<0.5
m-Xylene	<0.5
p-Xylene	<0.5
4-Isopropyltoluene	<0.5

< - Below Minimum Detectable Level

Samples taken by ESC staff
1 1/2 hrs. sampling time

09/30/93

Roger J. McGlynn

ENVIRONMENTAL SCIENCE CORPORATION
362 Industrial Park Rd.
Middletown, CT 06457
(203) 632-0600, FAX (203) 632-7743

LABORATORY REPORT

LAB. REPORT NO.
C-13507

State Certification No. PH-0476
EPA Number CT013

CLIENT

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Whelen Engineering Co.
Route 145
Chester, CT 06412

DATE RECEIVED	09/14/93
PURCHASE ORDER NO.	246323
CLIENT I.D.	COMM-1993
CLIENT PROJECT NO.	
TELEPHONE NO.	526-9504

PHASE II & V REGULATIONS

SAMPLE ID: OUT. SPIGOT
LOCATION: CHESTER, CT
TYPE: AQUEOUS
DATE: 09/14/93

** TEST ** (ALL UNITS ARE mg/l)	
** DRINKING WATER INORGANICS	
Antimony	<0.05
Arsenic	0.001
Barium	<0.02
Beryllium	<0.004
Cadmium	<0.005
Chromium Total	<0.01
Copper	0.02
Lead	0.004
Mercury	<0.002
Nickel	<0.01
Selenium	<0.005
Silver	<0.01
Sodium	12
Thallium	<0.002
Chloride	6
Fluoride	<0.1
Sulfate	14
Nitrate & Nitrite Nitrogen	2.84
Cyanide, Total	<0.02

< - Below Minimum Detectable Level

Samples taken by ESC staff
1 1/2 hrs. sampling time

09/30/93

Thomas J. McGloin
LABORATORY DIRECTOR

ENVIRONMENTAL SCIENCE CORPORATION
362 Industrial Park Rd.
Middletown, CT 06457
(203) 632-0600, FAX (203) 632-7743

LABORATORY REPORT

LAB. REPORT NO.
C-17996

State Certification No. PH-0476
EPA Number CT013

CLIENT

Mr. Roger Moore
Whelen Engineering
Winthrop Road
Chester, CT 06412

DATE RECEIVED	06/04/94
PURCHASE ORDER NO.	
CLIENT I.D.	WHELEN
CLIENT PROJECT NO.	
TELEPHONE NO.	

SAMPLE ID: OUTSIDE FAUC
LOCATION: CHESTER, CT
TYPE: AQUEOUS
DATE: 06/03/94

** TEST **	*UNITS*	
Nitrate Nitrogen	mg/l	2.63
Nitrite Nitrogen	mg/l	<0.005
Total Coliform Bacteria	/100ml	0

< - Below Minimum Detectable Level

Samples taken by ESC staff
cc: Robert Kokoszyna, DOHS

06/21/94
DATE REPORTED

Thomas J. McGlynn

ENVIRONMENTAL SCIENCE CORPORATION
362 Industrial Park Rd.
Middletown, CT 06457
(203) 632-0600, FAX (203) 632-7743

LABORATORY REPORT

LAB. REPORT NO.
C-17996

State Certification No. PH-0476
EPA Number CT013

CLIENT

Mr. Roger Moore
Whelen Engineering
Winthrop Road
Chester, CT 06412

DATE RECEIVED	06/04/94
PURCHASE ORDER NO.	
CLIENT I.D.	WHELEN
CLIENT PROJECT NO.	
TELEPHONE NO.	

SAMPLE ID: OUTSIDE FAUC
LOCATION: CHESTER, CT
TYPE: AQUEOUS
DATE: 06/03/94

** TEST ** (ALL UNITS ARE PPB)	
** METHOD 502.2+ADDITIONALS	
cis 1,3 Dichloropropene	<0.5
trans 1,3-Dichloropropene	<0.5
1,2,3-Trimethyl Benzene	<0.5
Methyltertiarybutylether	<0.5
Benzene	<0.5
Bromobenzene	<0.5
Bromochloromethane	<0.5
Bromodichloromethane	<0.5
Bromoform	<0.5
Bromomethane	<0.5
n-Butylbenzene	<0.5
sec-Butylbenzene	<0.5
tert-Butylbenzene	<0.5
Carbon Tetrachloride	<0.5
Chlorobenzene	<0.5
Chloroethane	<0.5
Chloroform	<0.5
Chloromethane	<0.5
2-Chlorotoluene	<0.5
4-Chlorotoluene	<0.5
Dibromochloromethane	<0.5
1,2-Dibromo-3-Chloropropane	<0.5
1,2-Dibromoethane	<0.5
Dibromomethane	<0.5
1,2-Dichlorobenzene	<0.5

< - Below Minimum Detectable Level

Samples taken by ESC staff
cc: Robert Kokoszyna, DOHS

Thomas J. McGloin

ENVIRONMENTAL SCIENCE CORPORATION
362 Industrial Park Rd.
Middletown, CT 06457
(203) 632-0600, FAX (203) 632-7743

LABORATORY REPORT

LAB. REPORT NO.
C-17996

State Certification No. PH-0476
EPA Number CT013

CLIENT

Mr. Roger Moore
Whelen Engineering
Winthrop Road
Chester, CT 06412

DATE RECEIVED	06/04/94
PURCHASE ORDER NO.	
CLIENT I.D.	WHELEN
CLIENT PROJECT NO.	
TELEPHONE NO.	

SAMPLE ID: OUTSIDE FAUC
LOCATION: CHESTER, CT
TYPE: AQUEOUS
DATE: 06/03/94

** TEST ** (ALL UNITS ARE PPB)	
METHOD 502.2+ADDITIONALS (continued)	
1,3-Dichlorobenzene	<0.5
1,4-Dichlorobenzene	<0.5
Dichlorodifluoromethane	<0.5
1,1-Dichloroethane	<0.5
1,2-Dichloroethane	<0.5
1,1-Dichloroethene	<0.5
cis-1,2-Dichloroethene	<0.5
trans-1,2-Dichloroethene	<0.5
1,2-Dichloropropane	<0.5
1,3-Dichloropropane	<0.5
2,2-Dichloropropane	<0.5
1,1-Dichloropropene	<0.5
Ethylbenzene	<0.5
Hexachlorobutadiene	<0.5
Isopropylbenzene	<0.5
Methylene Chloride	<0.5
Naphthalene	<0.5
n-Propylbenzene	<0.5
Styrene	<0.5
1,1,1,2-Tetrachloroethane	<0.5
1,1,2,2-Tetrachloroethane	<0.5
Tetrachloroethene	<0.5
Toluene	<0.5
1,2,3-Trichlorobenzene	<0.5
1,2,4-Trichlorobenzene	<0.5

< - Below Minimum Detectable Level

Samples taken by ESC staff
cc: Robert Kokoszyna, DOHS

Thomas J. McGlynn

ENVIRONMENTAL SCIENCE CORPORATION
362 Industrial Park Rd.
Middletown, CT 06457
(203) 632-0600, FAX (203) 632-7743

LABORATORY REPORT

LAB. REPORT NO.
C-17996

State Certification No. PH-0476
EPA Number CT013

CLIENT

Mr. Roger Moore
Whelen Engineering
Winthrop Road
Chester, CT 06412

DATE RECEIVED	06/04/94
PURCHASE ORDER NO.	
CLIENT I.D.	WHELEN
CLIENT PROJECT NO.	
TELEPHONE NO.	

SAMPLE ID: OUTSIDE FAUC
LOCATION: CHESTER, CT
TYPE: AQUEOUS
DATE: 06/03/94

** TEST **	(ALL UNITS ARE PPB)
METHOD 502.2+ADDITIONALS (continued)	
1,1,1-Trichloroethane	<0.5
1,1,2-Trichloroethane	<0.5
Trichloroethene	<0.5
Trichlorofluoromethane	<0.5
1,2,3-Trichloropropane	<0.5
1,2,4-Trimethylbenzene	<0.5
1,3,5-Trimethylbenzene	<0.5
Vinyl Chloride	<0.5
o-Xylene	<0.5
m-Xylene	<0.5
p-Xylene	<0.5
4-Isopropyltoluene	<0.5

< - Below Minimum Detectable Level

Samples taken by ESC staff
cc: Robert Kokoszyna, DOHS

Thomas J. McGlynn

ENVIRONMENTAL SCIENCE CORPORATION
362 Industrial Park Rd.
Middletown, CT 06457
(203) 632-0600, FAX (203) 632-7743

LABORATORY REPORT

LAB. REPORT NO.
C-17996

State Certification No. PH-0476
EPA Number CT013

CLIENT

Mr. Roger Moore
Whelen Engineering
Winthrop Road
Chester, CT 06412

DATE RECEIVED	06/04/94
PURCHASE ORDER NO.	
CLIENT I.D.	WHELEN
CLIENT PROJECT NO.	
TELEPHONE NO.	

		SAMPLE ID:	OUTSIDE FAUC
		LOCATION:	CHESTER, CT
		TYPE:	AQUEOUS
		DATE:	06/03/94
** TEST **	*UNITS*		
** PHYSICALS			
pH	UNITS	6.7	
Color	CU	2	
Odor	(0-5)	0	
Turbidity	NTU	0.06	

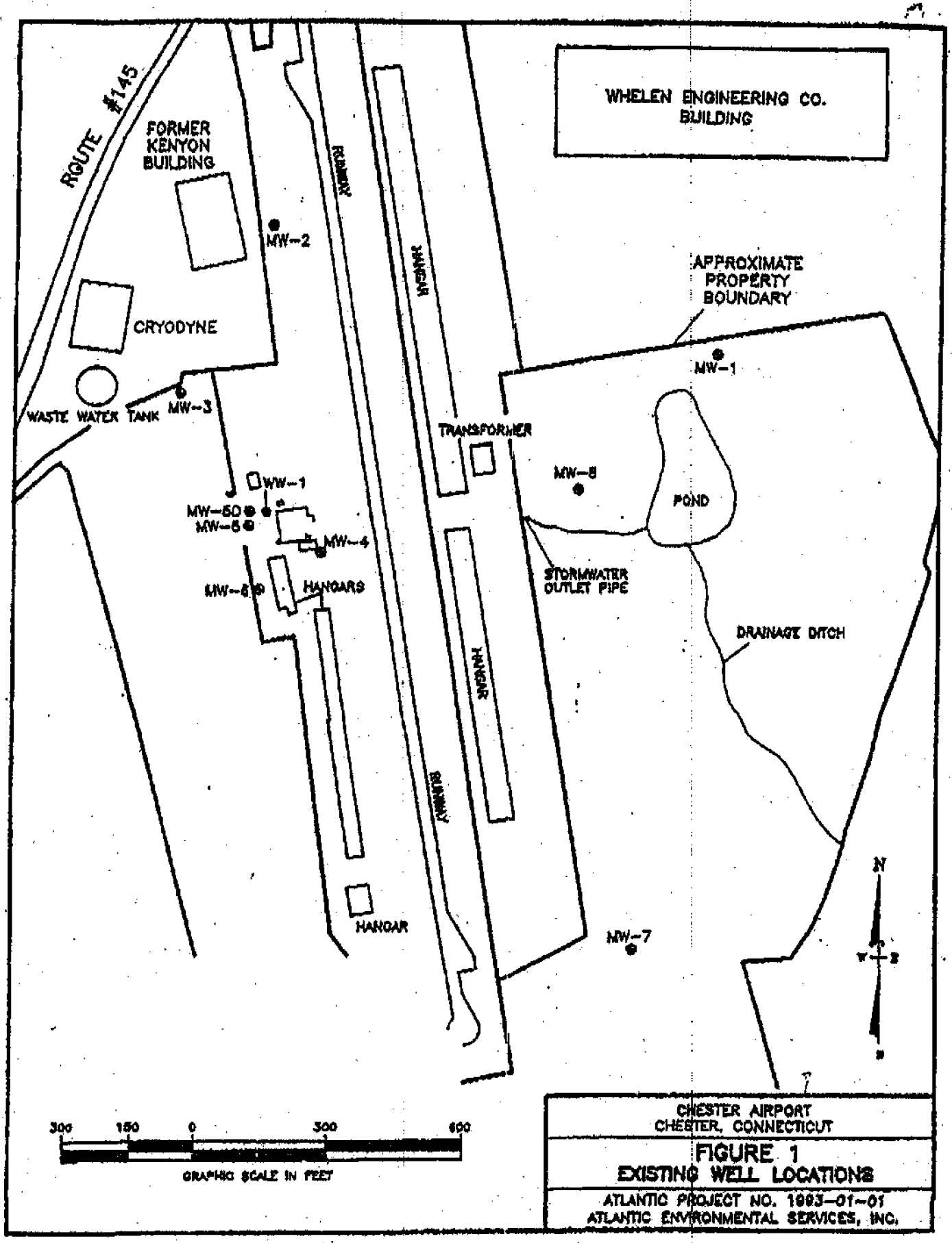
Samples taken by ESC staff
cc: Robert Kokoszyna, DOHS

06/21/94
DATE REPORTED

LABORATORY DIRECTOR

Attachment 2c

Groundwater Samples Taken by Atlantic Environmental Inc.
of Groundwater South of Whelen Facility, dated 12/5/93 and12/7/93


WHELEN ENGINEERING CO. BUILDING
ROUTE #145
FORMER KENYON BUILDING
CRYODYNE
WASTE WATER TANK
MW-2
MW-3
MW-1
MW-5D
MW-5
MW-4
MW-6
HANGARS
RUNWAY
HANGAR
HANGAR
HANGAR
TRANSFORMER
APPROXIMATE PROPERTY BOUNDARY
MW-1
MW-8
POND
STORMWATER OUTLET PIPE
DRAINAGE DITCH
MW-7
N
300 150 0 300 600
GRAPHIC SCALE IN FEET
CHESTER AIRPORT
CHESTER, CONNECTICUT
FIGURE 1
EXISTING WELL LOCATIONS
ATLANTIC PROJECT NO. 1993-01-01
ATLANTIC ENVIRONMENTAL SERVICES, INC.

LABORATORY ANALYTICAL RESULTS

Client : Atlantic Envir. Serv.
Lab No. : 123-017-7P
PO No. : 1993-01-01
Rep. Date : 12-6-93

Date Tested : 12-5-93
Analyst : RS

EPA METHOD 601/8010 Date Sample: Rec'd: 12-3-93

Matrix Type :		W	W	W	W
Field ID :	MDL	GW-1	GW-2	GW-3	GW-5D
Chloromethane	2	BDL	BDL	BDL	BDL
Bromomethane	2	BDL	BDL	BDL	BDL
Vinylchloride	2	BDL	BDL	BDL	BDL
Chloroethane	2	BDL	BDL	BDL	BDL
Methylenechloride	1	BDL	BDL	BDL	BDL
Trichlorofluoromethane	1	BDL	BDL	BDL	BDL
11-Dichloroethylene	1	BDL	BDL	BDL	BDL
11-Dichloroethane	1	BDL	BDL	BDL	BDL
T12-Dichloroethylene	1	BDL	BDL	BDL	BDL
Chloroform	1	BDL	BDL	BDL	BDL
12-Dichloroethane	1	BDL	BDL	BDL	BDL
111-Trichloroethane	1	BDL	BDL	BDL	BDL
Carbontetrachloride	1	BDL	BDL	BDL	BDL
Bromodichloromethane	1	BDL	BDL	BDL	BDL
12-Dichloropropane	1	BDL	BDL	BDL	BDL
T13-Dichloropropylene	1	BDL	BDL	BDL	BDL
Trichloroethylene	1	BDL	BDL	BDL	BDL
Dibromochloromethane	1	BDL	BDL	BDL	BDL
112-Trichloroethane	1	BDL	BDL	BDL	BDL
Cis13-Dichloropropylene	1	BDL	BDL	BDL	BDL
2-Chloroethylvinylether	1	BDL	BDL	BDL	BDL
Bromoform	1	BDL	BDL	BDL	BDL
1122-Tetrachloroethane	1	BDL	BDL	BDL	BDL
Tetrachloroethylene	1	BDL	BDL	BDL	BDL
Chlorobenzene	1	BDL	BDL	BDL	BDL
Benzyl Chloride	10	BDL	BDL	BDL	BDL
Bis(2-chloroethoxy)methane	10	BDL	BDL	BDL	BDL
Bis(2-chloroisopropyl)eth	10	BDL	BDL	BDL	BDL
Bromobenzene	1	BDL	BDL	BDL	BDL
Chloroacetaldehyde	10	BDL	BDL	BDL	BDL
1-Chlorohexane	1	BDL	BDL	BDL	BDL
Chloromethyl methyl ether	10	BDL	BDL	BDL	BDL
Chlorotoluene	1	BDL	BDL	BDL	BDL
Dibromomethane	1	BDL	BDL	BDL	BDL
12-Dichlorobenzene	1	BDL	BDL	BDL	BDL
13-Dichlorobenzene	1	BDL	BDL	BDL	BDL
14-Dichlorobenzene	1	BDL	BDL	BDL	BDL
Trichloropropane	1	BDL	BDL	BDL	BDL

MDL= Minimum Detectable Level/BDL= Below Detection Level/UNITS= PPB

Matrix: W=Water/S=Soil/Solid Oil/Hydrocarbons

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 4

To	Mike Wheaton	From	Helen
Co.	ATS	Co.	CTS
Dept.	1993-01-01	Phone #	

Client	: Atlantic Envir. Serv.	Date Tested	: 12-5-93
Lab No.	: 123-017-7P	Analyst	: RS
PO No.	: 1993-01-01		
Rep. Date	: 12-6-93		

EPA METHOD 601/8010 Date Samples Rec'd: 12-3-93

Matrix Type :		W	W	W
Field ID :	MDL	GW-5	GW-8	MW-1
Chloromethane	2	BDL	BDL	BDL
Bromomethane	2	BDL	BDL	BDL
Vinylchloride	2	BDL	BDL	BDL
Chloroethane	2	BDL	BDL	BDL
Methylenechloride	1	BDL	BDL	BDL
Trichlorofluoromethane	1	BDL	BDL	BDL
11-Dichloroethylene	1	BDL	BDL	BDL
11-Dichloroethane	1	BDL	BDL	BDL
T12-Dichloroethylene	1	BDL	BDL	BDL
Chloroform	1	BDL	BDL	BDL
12-Dichloroethane	1	BDL	BDL	BDL
111-Trichloroethane	1	BDL	BDL	BDL
Carbontetrachloride	1	BDL	BDL	BDL
Bromodichloromethane	1	BDL	BDL	BDL
12-Dichloropropane	1	BDL	BDL	BDL
T13-Dichloropropylene	1	BDL	BDL	BDL
Trichloroethylene	1	BDL	BDL	BDL
Dibromochloromethane	1	BDL	BDL	BDL
112-Trichloroethane	1	BDL	BDL	BDL
cis13-Dichloropropylene	1	BDL	BDL	BDL
2-Chlorethylvinylether	1	BDL	BDL	BDL
Bromoform	1	BDL	BDL	BDL
1122-Tetrachloroethane	1	BDL	BDL	BDL
Tetrachloroethylene	1	BDL	BDL	BDL
Chlorobenzene	1	BDL	BDL	BDL
Benzyl chloride	10	BDL	BDL	BDL
Bis(2-chloroethoxy)methane	10	BDL	BDL	BDL
Bis(2-chloroisopropyl)eth	10	BDL	BDL	BDL
Bromobenzene	1	BDL	BDL	BDL
Chloroacetaldehyde	10	BDL	BDL	BDL
1-Chlorohexane	1	BDL	BDL	BDL
Chloromethyl methyl ether	10	BDL	BDL	BDL
Chlorotoluene	1	BDL	BDL	BDL
Dibromomethane	1	BDL	BDL	BDL
12-Dichlorobenzene	1	BDL	BDL	BDL
13-Dichlorobenzene	1	BDL	BDL	BDL
14-Dichlorobenzene	1	BDL	BDL	BDL
Trichloropropane	1	BDL	BDL	BDL

MDL= Minimum Detectable Level /BDL= Below Detection Level/UNITS= PPB

Matrix Type : W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
155 Gracey Avenue / Meriden, CT 06451-2269
(203)-634-3731
Connecticut Certification No. PH-0647

Client	: Atlantic Envir. Serv.	Date Tested	: 12-5-93
Lab No.	: 123-017-7P	Analyst	: RS
PO No.	: 1993-01-01		
Rep. Date	: 12-6-93		

EPA METHOD 602/8020 Date Samples Rec'd: 12-3-93

Matrix Type :		W	W	W	W
Field ID :		GW-1	GW-2	GW-3	GW-5D
	MDL				
Benzene	1	BDL	BDL	BDL	BDL
Toluene	1	BDL	BDL	BDL	BDL
Chlorobenzene	1	BDL	BDL	BDL	BDL
Ethyl Benzene	1	BDL	BDL	BDL	BDL
P & M Xylene	1	BDL	BDL	BDL	BDL
O- Xylene	1	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	1	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	1	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	1	BDL	BDL	BDL	BDL

MDL = Minimum Detectable Level / BDL = Below Detection Level/ UNITS= PPB

Matrix Type: W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbons

Client	: Atlantic Envir. Serv.	Date Tested	: 12-5-93
Lab No.	: 123-017-7P	Analyst	: RS
PO No.	: 1993-01-01		
Rep. Date	: 12-6-93		

EPA METHOD 602/8020 Date Samples Rec'd: 12-3-93

	MDL				
Matrix Type :		W	W	W	
Field ID :		GW-5	GW-8	MW-1	
Benzene	1	BDL	BDL	BDL	
Toluene	1	BDL	BDL	BDL	
Chlorobenzene	1	BDL	BDL	BDL	
Ethyl Benzene	1	BDL	BDL	BDL	
P & M Xylene	1	BDL	BDL	BDL	
O- Xylene	1	BDL	BDL	BDL	
1,4-Dichlorobenzene	1	BDL	BDL	BDL	
1,3-Dichlorobenzene	1	BDL	BDL	BDL	
1,2-Dichlorobenzene	1	BDL	BDL	BDL	

MDL = Minimum Detectable Level / BDL = Below Detection Level / UNITS = PPB

Matrix Type: W = Water/Aqueous S = Soil/Solid O = Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
185 Gracey Avenue / Meriden, CT 06451-2266
(203)-634-3731
Connecticut Certification No. PH-0547

Date Samples Received : 12-1-93

Client Name: Atlantic Environmental Serv.	CTL Lab No. 123-027-7P
Report Date: 12-7-93	PO/Job No. 1993-01-01

RESULTS OF ANALYSIS

EPA 418.1

Matrix Type: W

Field Id	CTL#	Oil & Grease TPH)-mg/L			
GW-1	14801	ND<5			
GW-2	14802	ND<5			
GW-3	14803	ND<5			
GW-5D	14804	ND<5			
GW-5	14805	ND<5			
GW-8	14806	ND<5			
WW-1	14807	ND<5			

Matrix Types : W = Water/Aqueous
S = Soil/Solid
O = Oil/Hydrocarbons

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1
To Mike Liberace | From Helen
Co. AES | Co. CTL
Dept. 1993-01-01 | Phone #
Fax # 123-027-7P | Fax # 12/7/93

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Client	: Atlantic Envir. Serv.	Date Tested	: 12-7-93
Lab No.	: 123-037-2P	Analyst	: RS
PO No.	: 1993-01-01		
Rep. Date	: 12-8-93		

EPA METHOD 602/8020 Date Samples Rec'd: 12-6-93

	MDL				
Matrix Type :		W	W		
Field ID :		MW-4	GW-7		
Benzene	1	BDL	BDL		
Toluene	1	BDL	BDL		
Chlorobenzene	1	BDL	BDL		
Ethyl Benzene	1	BDL	BDL		
P & M Xylene	1	1.0	BDL		
O- Xylene	1	BDL	BDL		
1,4-Dichlorobenzene	1	BDL	BDL		
1,3-Dichlorobenzene	1	BDL	BDL		
1,2-Dichlorobenzene	1	BDL	BDL		

MDL = Minimum Detectable Level/ BDL = Below Detection Level/ UNITS = PPB

Matrix Type: W = Water/Aqueous S = Soil/Solid O = Oil/Hydrocarbons

Client	: Atlantic Envir. Serv.	Date Tested	: 12-7-93
Lab No.	: 123-037-2P	Analyst	: RS
PO No.	: 1993-01-01		
Rep. Date	: 12-8-93		

EPA METHOD 601/8010 Date Samples Rec'd: 12-6-93

	MDL				
Matrix Type :		W	W		
Field ID :		GW-4	GW-7		
Chloromethane	2	BDL	BDL		
Bromomethane	2	BDL	BDL		
Vinylchloride	2	BDL	BDL		
Chloroethane	2	BDL	BDL		
Methylenechloride	1	BDL	BDL		
Trichlorofluoromethane	1	BDL	BDL		
11-Dichloroethylene	1	BDL	BDL		
11-Dichloroethane	1	BDL	BDL		
T12-Dichloroethylene	1	BDL	BDL		
Chloroform	1	BDL	BDL		
12-Dichloroethane	1	BDL	BDL		
111-Trichloroethane	1	BDL	BDL		
Carbontetrachloride	1	BDL	BDL		
Bromodichloromethane	1	BDL	BDL		
12-Dichloropropane	1	BDL	BDL		
T13-Dichloropropylene	1	BDL	BDL		
Trichloroethylene	1	BDL	BDL		
Dibromochloromethane	1	BDL	BDL		
112-Trichloroethane	1	BDL	BDL		
Cis13-Dichloropropylene	1	BDL	BDL		
2-Chlorethylvinylether	1	BDL	BDL		
Bromoform	1	BDL	BDL		
1122-Tetrachloroethane	1	BDL	BDL		
Tetrachloroethylene	1	BDL	BDL		
Chlorobenzene	1	BDL	BDL		
Benzyl Chloride	10	BDL	BDL		
Bis(2-chlorethoxy)methane	10	BDL	BDL		
Bis(2-chloroisopropyl)eth	10	BDL	BDL		
Bromobenzene	1	BDL	BDL		
Chloracetaldehyde	10	BDL	BDL		
1-Chlorohexane	1	BDL	BDL		
Chloromethyl methyl ether	10	BDL	BDL		
Chlorotoluene	1	BDL	BDL		
Dibromomethane	1	BDL	BDL		
12-Dichlorobenzene	1	BDL	BDL		
13-Dichlorobenzene	1	BDL	BDL		
14-Dichlorobenzene	1	BDL	BDL		
Trichloropropane	1	BDL	BDL		

MDL= Minimum Detectable Level, BDL= Below Detection Level/UNITS= PPB

arbons

Post-it™ brand fax transmittal memo 7671 # of pages ▸ 2

To Mike Libertino	From Helen
Co. ATC	Co. [illegible]
Dept. 1993-01-01	Phone #
Fax # 123-037-2,?	Date 12/8/93

Date Samples Received : 12-6-93

Client Name: Atlantic Envir. Serv.	CTL Lab No. 123-040-2P
Report Date: 12-8-93	PO/Job No. 1993-01-01

RESULTS OF ANALYSIS

EPA 418.1

Matrix Type	W	W		
CTL Sample No.	14891	14892		
Field Id	GW-4	GW-7		
Oil & Grease (TPH)-mg/L	ND <5	ND<5		

Matrix Types : W = Water/Aqueous
S = Soil/Solid
O = Oil/Hydrocarbons

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1

To Mike Liberace	From Helen
Co. ATL	Co. CTL
Dept. 1993-01-01	Phone #
Fax # 123-040-2	Fax # 12/8/93

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2298
(203)-634-3731
Connecticut Certification No. PH-0547

Client	: Atlantic Envir. Serv.	Date Tested	: 12-5-93
Lab No.	: 123-017-7P	Analyst	: RS
PO No.	: 1993-01-01		
Rep. Date	: 12-6-93		

EPA METHOD 601/8010 Date Samples Rec'd: 12-3-93

Matrix Type :		W	W	W	
Field ID :	MDL	GW-5	GW-8	MW-1	
Chloromethane	2	BDL	BDL	BDL	
Bromomethane	2	BDL	BDL	BDL	
Vinylchloride	2	BDL	BDL	BDL	
Chloroethane	2	BDL	BDL	BDL	
Methylenechloride	1	BDL	BDL	BDL	
Trichlorofluoromethane	1	BDL	BDL	BDL	
11-Dichloroethylene	1	BDL	BDL	BDL	
11-Dichloroethane	1	BDL	BDL	BDL	
T12-Dichloroethylene	1	BDL	BDL	BDL	
Chloroform	1	BDL	BDL	BDL	
12-Dichloroethane	1	BDL	BDL	BDL	
111-Trichloroethane	1	BDL	BDL	BDL	
Carbontetrachloride	1	BDL	BDL	BDL	
Bromodichloromethane	1	BDL	BDL	BDL	
12-Dichloropropane	1	BDL	BDL	BDL	
T13-Dichloropropylene	1	BDL	BDL	BDL	
Trichloroethylene	1	BDL	BDL	BDL	
Dibromochloromethane	1	BDL	BDL	BDL	
112-Trichloroethane	1	BDL	BDL	BDL	
Cis13-Dichloropropylene	1	BDL	BDL	BDL	
2-Chlorethylvinylether	1	BDL	BDL	BDL	
Bromoform	1	BDL	BDL	BDL	
1122-Tetrachloroethane	1	BDL	BDL	BDL	
Tetrachloroethylene	1	BDL	BDL	BDL	
Chlorobenzene	1	BDL	BDL	BDL	
Benzyl Chloride	10	BDL	BDL	BDL	
Bis(2-chlorethoxy)methane	10	BDL	BDL	BDL	
Bis(2-chloroisopropyl)eth	10	BDL	BDL	BDL	
Bromobenzene	1	BDL	BDL	BDL	
Chloroacetaldehyde	10	BDL	BDL	BDL	
1-Chlorohexane	1	BDL	BDL	BDL	
Chloromethyl methyl ether	10	BDL	BDL	BDL	
Chlorotoluene	1	BDL	BDL	BDL	
Dibromomethane	1	BDL	BDL	BDL	
12-Dichlorobenzene	1	BDL	BDL	BDL	
13-Dichlorobenzene	1	BDL	BDL	BDL	
14-Dichlorobenzene	1	BDL	BDL	BDL	
Trichloropropane	1	BDL	BDL	BDL	

MDL= Minimum Detectable Level/BDL= Below Detection Level/UNITS= PPB

Matrix Type : W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbone

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731

Client	: Atlantic Envir. Serv.	Date Tested	: 12-5-93
Lab No.	: 123-017-7P	Analyst	: RS
PO No.	: 1993-01-01		
Rep. Date	: 12-6-93		

EPA METHOD 601/8010 Date Samples Rec'd: 12-3-93

Matrix Type :		W	W	W	W
Field ID :	**MDL**	**GW-1**	**GW-2**	**GW-3**	**GW-5D**
Chloromethane	2	BDL	BDL	BDL	BDL
Bromomethane	2	BDL	BDL	BDL	BDL
Vinylchloride	2	BDL	BDL	BDL	BDL
Chloroethane	2	BDL	BDL	BDL	BDL
Methylenechloride	1	BDL	BDL	BDL	BDL
Trichlorofluoromethane	1	BDL	BDL	BDL	BDL
11-Dichloroethylene	1	BDL	BDL	BDL	BDL
11-Dichloroethane	1	BDL	BDL	BDL	BDL
T12-Dichloroethylene	1	BDL	BDL	BDL	BDL
Chloroform	1	BDL	BDL	BDL	BDL
12-Dichloroethane	1	BDL	BDL	BDL	BDL
111-Trichloroethane	1	BDL	BDL	BDL	BDL
Carbontetrachloride	1	BDL	BDL	BDL	BDL
Bromodichloromethane	1	BDL	BDL	BDL	BDL
12-Dichloropropane	1	BDL	BDL	BDL	BDL
T13-Dichloropropylene	1	BDL	BDL	BDL	BDL
Trichloroethylene	1	BDL	BDL	BDL	BDL
Dibromochloromethane	1	BDL	BDL	BDL	BDL
112-Trichloroethane	1	BDL	BDL	BDL	BDL
Cis13-Dichloropropylene	1	BDL	BDL	BDL	BDL
2-Chlorethylvinylether	1	BDL	BDL	BDL	BDL
Bromoform	1	BDL	BDL	BDL	BDL
1122-Tetrachloroethane	1	BDL	BDL	BDL	BDL
Tetrachloroethylene	1	BDL	BDL	BDL	BDL
Chlorobenzene	1	BDL	BDL	BDL	BDL
Benzyl Chloride	10	BDL	BDL	BDL	BDL
Bis(2-chlorethoxy)methane	10	BDL	BDL	BDL	BDL
Bis(2-chloroisopropyl)eth	10	BDL	BDL	BDL	BDL
Bromobenzene	1	BDL	BDL	BDL	BDL
Chloracetaldehyde	10	BDL	BDL	BDL	BDL
1-Chlorohexane	1	BDL	BDL	BDL	BDL
Chloromethyl methyl ether	10	BDL	BDL	BDL	BDL
Chlorotoluene	1	BDL	BDL	BDL	BDL
Dibromomethane	1	BDL	BDL	BDL	BDL
12-Dichlorobenzene	1	BDL	BDL	BDL	BDL
13-Dichlorobenzene	1	BDL	BDL	BDL	BDL
14-Dichlorobenzene	1	BDL	BDL	BDL	BDL
Trichloropropane	1	BDL	BDL	BDL	BDL

MDL= Minimum Detectable Level/BDL= Below Detection Level/UNITS= PPB

Matri[illegible] W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbons

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 4
To [illegible]	From Helen
Co. [illegible]	Co. [illegible]
Dept. [illegible]	Phone #

Client	: Atlantic Envir. Serv.	Date Tested	: 12-5-93
Lab No.	: 123-017-7P	Analyst	: RS
PO No.	: 1993-01-01		
Rep. Date	: 12-6-93		

EPA METHOD 602/8020 Date Samples Rec'd: 12-3-93

	MDL				
Matrix Type :		W	W	W	W
Field ID :		GW-1	GW-2	GW-3	GW-5D
Benzene	1	BDL	BDL	BDL	BDL
Toluene	1	BDL	BDL	BDL	BDL
Chlorobenzene	1	BDL	BDL	BDL	BDL
Ethyl Benzene	1	BDL	BDL	BDL	BDL
P & M Xylene	1	BDL	BDL	BDL	BDL
O- Xylene	1	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	1	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	1	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	1	BDL	BDL	BDL	BDL

MDL = Minimum Detectable Level/ BDL = Below Detection Level/ UNITS= PPB

Matrix Type: W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
185 Gracey Avenue / Meriden, CT 06451-2288
(203)-634-3731
Connecticut Certification No. PH-0647

Client	: Atlantic Envir. Serv.	Date Tested	: 12-5-93
Lab No.	: 123-017-7P	Analyst	: RS
PO No.	: 1993-01-01		
Rep. Date	: 12-6-93		

EPA METHOD 602/8020 Date Samples Rec'd: 12-3-93

	MDL				
Matrix Type :		W	W	W	
Field ID :		GW-5	GW-8	WW-1	
Benzene	1	BDL	BDL	BDL	
Toluene	1	BDL	BDL	BDL	
Chlorobenzene	1	BDL	BDL	BDL	
Ethyl Benzene	1	BDL	BDL	BDL	
P & M Xylene	1	BDL	BDL	BDL	
O- Xylene	1	BDL	BDL	BDL	
1,4-Dichlorobenzene	1	BDL	BDL	BDL	
1,3-Dichlorobenzene	1	BDL	BDL	BDL	
1,2-Dichlorobenzene	1	BDL	BDL	BDL	

MDL = Minimum Detectable Level/ BDL = Below Detection Level/ UNITS= PPB

Matrix Type: W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbons

Date Samples Received : 12-3-93

Client Name: Atlantic Environmental Serv. CTL Lab No. 123-027-7P
Report Date: 12-7-93 PO/Job No. 1993-01-01

RESULTS OF ANALYSIS

EPA 418.1

Matrix Type: W

Field Id	CTL#	Oil & Grease (TPH)-mg/L
GW-1	14801	ND<5
GW-2	14802	ND<5
GW-3	14803	ND<5
GW-5D	14804	ND<5
GW-5	14805	ND<5
GW-8	14806	ND<5
WW-1	14807	ND<5

Matrix Types : W = Water/Aqueous
S = Soil/Solid
O = Oil/Hydrocarbons

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1

To Mike Liberace	From Helen
Co. Atl	Co. CTL
Dept. 1993-01-01	Phone #
Fax # 123-027-7P	Fax # 12 7 93

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Client	: Atlantic Envir. Serv.	Date Tested	: 12-7-93
Lab No.	: 123-037-2P	Analyst	: RS
PO No.	: 1993-01-01		
Rep. Date	: 12-8-93		

EPA METHOD 601/8010 Date Samples Rec'd: 12-6-93

	MDL				
Matrix Type :		W	W		
Field ID :		GW-4	GW-7		
Chloromethane	2	BDL	BDL		
Bromomethane	2	BDL	BDL		
Vinylchloride	2	BDL	BDL		
Chloroethane	2	BDL	BDL		
Methylenechloride	1	BDL	BDL		
Trichlorofluoromethane	1	BDL	BDL		
11-Dichloroethylene	1	BDL	BDL		
11-Dichloroethane	1	BDL	BDL		
T12-Dichloroethylene	1	BDL	BDL		
Chloroform	1	BDL	BDL		
12-Dichloroethane	1	BDL	BDL		
111-Trichloroethane	1	BDL	BDL		
Carbontetrachloride	1	BDL	BDL		
Bromodichloromethane	1	BDL	BDL		
12-Dichloropropane	1	BDL	BDL		
T13-Dichloropropylene	1	BDL	BDL		
Trichloroethylene	1	BDL	BDL		
Dibromochloromethane	1	BDL	BDL		
112-Trichloroethane	1	BDL	BDL		
Cis13-Dichloropropylene	1	BDL	BDL		
2-Chlorethylvinylether	1	BDL	BDL		
Bromoform	1	BDL	BDL		
1122-Tetrachloroethane	1	BDL	BDL		
Tetrachloroethylene	1	BDL	BDL		
Chlorobenzene	1	BDL	BDL		
Benzyl Chloride	10	BDL	BDL		
Bis(2-chlorethoxy)methane	10	BDL	BDL		
Bis(2-chloroisopropyl)eth	10	BDL	BDL		
Bromobenzene	1	BDL	BDL		
Chloracetaldehyde	10	BDL	BDL		
1-Chlorohexane	1	BDL	BDL		
Chloromethyl methyl ether	10	BDL	BDL		
Chlorotoluene	1	BDL	BDL		
Dibromomethane	1	BDL	BDL		
12-Dichlorobenzene	1	BDL	BDL		
13-Dichlorobenzene	1	BDL	BDL		
14-Dichlorobenzene	1	BDL	BDL		
Trichloropropane	1	BDL	BDL		

MDL= Minimum Detectable Level/BDL= Below Detection Level/UNITS= PPB

arbons

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 2

To Tuke libetre	From Helen
Co. ATC	Co. [illegible]
Dept. 1993-01-01	Phone #

Client	: Atlantic Envir. Serv.	Date Tested	: 12-7-93
Lab No.	: 123-037-2P	Analyst	: RS
PO No.	: 1993-01-01		
Rep. Date	: 12-8-93		

EPA METHOD 602/8020 Date Samples Rec'd: 12-6-93

	MDL				
Matrix Type :		W	W		
Field ID :		GW-4	GW-7		
Benzene	1	BDL	BDL		
Toluene	1	BDL	BDL		
Chlorobenzene	1	BDL	BDL		
Ethyl Benzene	1	BDL	BDL		
P & M Xylene	1	1.0	BDL		
O- Xylene	1	BDL	BDL		
1,4-Dichlorobenzene	1	BDL	BDL		
1,3-Dichlorobenzene	1	BDL	BDL		
1,2-Dichlorobenzene	1	BDL	BDL		

MDL = Minimum Detectable Level/ BDL = Below Detection Level/ UNITS = PPB

Matrix Type: W = Water/Aqueous S = Soil/Solid O = Oil/Hydrocarbons

Date Samples Received : 12-6-93

Client Name: Atlantic Envir. Serv.	CTL Lab No. 123-040-2P
Report Date: 12-8-93	PO/Job No. 1993-01-01

RESULTS OF ANALYSIS

EPA 418.1

Matrix Type	W	W		
CTL Sample No.	14891	14892		
Field Id	GW-4	GW-7		
Oil & Grease (TPH)-mg/L	ND<5	ND<5		

Matrix Types : W = Water/Aqueous
S = Soil/Solid
O = Oil/Hydrocarbons

Post-it™ brand fax transmittal memo 7671 | # of pages ▸

To Mike Libertine	From Helen
Co. ATL	Co. CTL
Dept. 1993-01-01	Phone #
Fax # 123-040-2P	Date 12/8/93

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Attachment 3

Excerpt of Letter to Bill Warzecha dated May 15, 1992

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NATURAL RESOURCES CENTER
79 Elm Street, Store Level
Hartford, CT 06106
Natural Diversity Data Base

June 10, 1994

John Hirschfeld
DEP - Bureau of Water Management
Permitting, Enforcement & Remediation Division

Re: Kenyon Building/Chester Airport, Chester

Dear John:

I have reviewed Natural Diversity Data Base maps and files regarding the project listed above and delineated on the maps provided. According to our information, the following (see attached list) Federally Endangered and Threatened species or Connecticut State Special Concern species have been reported from the 4-mile radius.

Natural Diversity Data Base information includes all information regarding critical biologic resources available to us at the time of the request. This information is a compilation of data collected over the years by the Natural Resources Center's Geological and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necesarily the result of comprehensive or site-specific field investigations. Consultation with the Data Base should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Thank you for providing us with the opportunity to comment on this proposed project. If I may be of further assistance, do not hesitate to call 566-3540.

Sincerely,

Stacey Kingsbury
Environmental Analyst

att.

NDDB REFERENCE NO.: 1000 SITE NAME: 'Kenyon building, Chester'

POINTS WITHIN 1/4 MILE:

POINTS FROM 1/4 TO 1/2 MILE:

POINTS FROM 1/2 TO 1 MILE:

LESPEDEZA REPENS	CREEPING BUSH-CLOVER	1990-10-04	SC
SCIRPUS TORREYI	TORREY BULRUSH	1990-80-09	T
PLATANTHERA CILIARIS	YELLOW-FRINGE ORCHIS	1982-08	T
ACIDIC ATLANTIC WHITE CEDAR BASIN S		1987	

POINTS FROM 1 TO 2 MILES:

PLATANTHERA CILIARIS	YELLOW-FRINGE ORCHIS	1990	T

POINTS FROM 2 TO 3 MILES:

POINTS FROM 3 TO 4 MILES:

ORONTIUM AQUATICUM	GOLDEN CLUB	1939-05-13	SC
FRESHWATER TIDAL MARSH		1979	
RHYNCHOSPORA MACROSTACHYA	BEAKED RUSH	1990-09-14	E

FEDERAL STATUS

E (or LE) = ENDANGERED
T (or LT) = THREATENED
LELT = ENDANGERED IN PART OF RANGE, THREATENED IN PART
C1 = CANDIDATE FOR FEDERAL LIST, CATEGORY 1
C2 = CANDIDATE FOR FEDERAL LIST, CATEGORY 2
3A = FORMER CATEGORY, REJECTED BECAUSE PRESUMED EXTINCT
3B = FORMER CATEGORY, REJECTED BECAUSE A SYNONYM OR HYBRID
3C = FORMER CATEGORY, REJECTED BECAUSE MORE COMMON OR ADEQUATELY PROTECTED

STATE STATUS

E = STATE ENDANGERED
T = STATE THREATENED
SC = STATE SPECIAL CONCERN

* SIGNIFICANT HABITAT INFORMATION INCLUDED AS AVAILABLE

Dates of Occupancy	Operator/Tenant/Use	Current Contact (according to Sec'y of State)
Present to 1991	Vacant	
1991 to 1987	New England Machine (Lower level) machine repair - solvent use.	George Gager
	(Upper level) office, personal business; Graphic Arts - possible solvent use.	George Gager
1987 to March 1984	Vacant	
1984 to 1976	Austin Electronics, a subsidiary of Whelen Engineering Company. (Upper and lower levels) Electronics parts manufacturing. Small vapor degreaser was used from 1976 to 1979, when the company converted to a detergent wash operation. (See further evaluation below). All solvents shipped off site through EWR or its predecessor.	John Olson
1976 to February 197?	Austin Electronics (Upper and lower levels) Electronic parts manufacturing. Small vapor degreaser was likely used - full extent of solvent use unknown at this time.	by merger - see above.
1976 to 1974	Vacant	
1974 to ?	Advanced Electronics Development, Inc. (AED) (Upper level) Electronic Manufacturing	Lawrence E. Bachman, President (as of 4-1-82) Advanced

		Electronics Development, Inc. 880 Boston Post Rd. Old Saybrook, CT 06475
	A Ceramics Company (Lower level)	
1974 to 1970±	General Telephone & Electronics Corporation Electronic assembly. Probable Solvent Use.	Charles R. Lee, President GTE Corporation One Stamford Forum Stamford, CT 06904
1970± to 1965±	Lear Siegler Inc.; (Both Levels)(Upper level) manufacturer of deep diving sono-buoys. (Lower level) large heavy duty machine shop Solvent use probable.	c/o Rapistan Corp. Peter Metros, President Suite 105 220 S Orange Ave. Livingston, NJ 07039
1965± to 1960	Kenyon Laboratories, Inc.; (both levels) manufacturing gyroscope stabilizers with machine shop and electronic production and mechanical assembly facilities. Solvent use probable.	

Attachment 4

MSDS Sheets for Mask, Water Soluble Organic Acid Flux and Flux Thinner Currently Used at Whelen, and Likely Used by Austin

TECH SPRAY

MATERIAL SAFETY DATA SHEET

WONDERMASK W (Auto/Robotic) Mask
2206 Bulk

Post Office Box 949
Amarillo, TX 79105-0949
Phone: (806) 372-8523
FAX: (806) 372-8750
Toll-Free: (800) 858-4043

PACER ELECTRONIK

66-0115220-01

Hazardous Description:
Non-Hazardous Material
(For Shipping Purposes Only)

Hazard Rating Health: 1 Fire: 0 Reactivity: 0
0-Least 1-Slight 2-Moderate 3-High 4-Extreme

I - HAZARDOUS COMPONENTS

Ingredient	CAS No.	%	Hazard
Isopropanol	67-63-0	5-10	OSHA PEL 400ppm
Glycerin	56-81-5	< 10	Non-Hazardous
Deionized Water			
Dispersing Agent		25-60	Non-Hazardous
Acrylic Polymer Emulsion		30-40	Non-Hazardous
Attapulgite Clay	8031-18-3		
Heavy Napthenic Distillate	64742-52-5		
Potassium Hydroxide	1310-58-3		
Titanium Dioxide	13646-36-7		
Dye			
Sodium Salt of Polymeric Carboxylic Acid			

II - PHYSICAL DATA

Boiling Point: 100 C 212F
pH: 7
Density: 1.15
% Volatile: 60
Solubility in Water: 40
% Solids: 40
Vapor Density (Air=1): NIF
Evaporation Rate (H2O=1): NIF
Appearance: Thick opaque white (or blue) paste with low odor.

III - FIRE AND EXPLOSION HAZARD DATA

Flash Point: None TCC Method
Explosion Limits
LEL: NA UEL: NA

Extinguishing Media: Water, foam, dry chemical, carbon dioxide.
Special Fire Fighting Procedures:
Fire fighters should wear self contained, positive-pressure breathing apparatus and avoid skin contact.

Unusual Fire and Explosion Hazards:
None

IV - HEALTH HAZARD DATA

Effects of Overexposure

INHALATION: Inhalation of vapors can cause mild discomfort due to alcoho content. Headache, nausea, and possible coordination problem:

EYES: Material is a mild eye irritant.

SKIN: Not a skin irritant. Slight defatting possible.

INGESTION: Nausea and diarrhea are possible.

Emergency and First Aid Procedures

INHALATION: Remove to fresh air. If breathing is stopped, administer artificial respiration. Seek medical attention.

EYES: Flush eyes for at least fifteen minutes with clear water. If irritation persists, seek medical attention.

SKIN: Wash with soap and water.

INGESTION: Induce vomiting with two glasses of tepid salt water and fing down throat. Seek medical attention.

NOTE: Adrenalin and other similar cardiac stimulants should NOT be used to treat effects of overexposure to this product. See section I.

None of the ingredients in this product are listed on the OSHA, IARC, NT list of possible carcinogenic, mutagenic, or teratogenic chemicals.

V - REACTIVITY DATA

Stability: STABLE Conditions to Avoid: None

Incompatibility (materials to avoid)
Reactive alkali metals, strong acids & bases.

Hazardous Decomposition Products:
Forced combustion yields carbon oxides.

Hazardous Polymerization: WILL NOT OCCUR

Conditions to Avoid: None

VI - SPILL OR LEAK PROCEDURES

Pick up material and place in sealed container for disposal.

VII - WASTE DISPOSAL METHODS

Material may be disposed of by a licensed reclaimer or incineration facility. Consult local, state, and federal disposal authorities for approved procedures.

VIII - EMPLOYEE PROTECTION

Respiratory Protection:
None Needed.

Ventilation: Normal, ambient atmosphere acceptable.

Hands: If needed, protective gloves, BUNA-N type or similar.

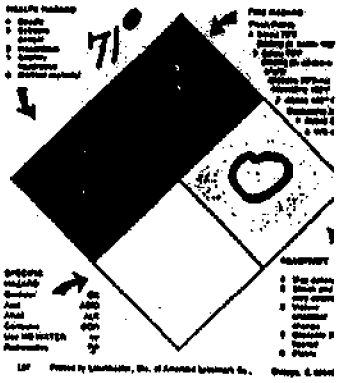
Eyes: Wear splash proof safety goggles or glasses.

Special Precautions:
Keep this and all chemicals out of reach of children. This product for industrial use only.

IX - OTHER INFORMATION

Do not store above 120 degrees F and do not allow to freeze as damage to product will occur.

Prepared By: B. Riffel Date: 08-16-92



66-0615212-00

MATERIAL SAFETY DATA SHEET
for
RFE 301-16 Water Soluble Organic Acid Flux

RFE INDUSTRIES, 19 Crows Mill Road, Keasbey, NJ 08832
Phone: 201-738-5200 or 201-344-3198
After Hours Emergency Phone: 800-424-9300
Date Prepared: 9/21/90
Name of person responsible for preparation: John Lukacs

I. HAZARDOUS COMPONENTS

Material	Concentration	PEL (ppm)	TLV (ppm)	CAS NUMBER
Denatured alcohol	70-90%	N/A complex mixture		(1)
Citric Acid	1-5%	N/E	N/E	77-92-9
Dimethylamine Hydrochloride	1-5%	N/E	N/E	506-59-2
Polyalkylene Glycol	1-10%	N/E	10 mg/m^3	51258-15-2
(1) Ethanol		1000	1000	64-17-5
Methanol		200	200 (skin)	67-56-1
			STEL 250	
Methyl Isobutyl Ketone		75	50	108-10-1
			STEL 75	

II. PHYSICAL DATA

Sp. Gravity: 0.829±0.005 @ 25°C
Boiling Point: 172°F
Vapor Press: 44 mm Hg (at 25°C)
Odor: Alcohol smell
Appearance: Clear, nearly water white liquid
Solubility in Water: Complete
Reactivity in water: None
Melting point N/A

III. FIRE AND EXPLOSION HAZARD INFORMATION

Flash Point: 71°F Method: COC
Upper Explosion Limit: 19%
Lower Explosion Limit: 3.3%
Extinguishing Media: Foam, dry chemical or carbon dioxide.
Special Fire Fighting Procedures: Standard for alcohols and volatile solvents. Self-contained breathing apparatus with full face piece operated in positive pressure mode. Water spray should be used to cool containers exposed to heat.
Unusual Fire and Explosion Hazards: Vapors are heavier than air and may travel along the ground to distant ignation sources. Water spray may be useful in minimizing vapors and cooling containers exposed to heat and flame. Care should be taken to avoid spreading burning liquid with water used for cooling purposes.
HMIS Rating: H-1, F-3, R-0
NFPA Rating: H-1, F-3, R-0

IV. REACTIVITY DATA

STABILITY: Stable Conditions to Avoid: None
Incompatibilities (Materials to Avoid): Strong oxidizing agents
Hazardous Decomposition Products: CO, CO_2, NO_X, and vapors which may be irritating.
HAZARDOUS POLYMERIZATION: Will Not Occur
Conditions to Avoid: None

V. HEALTH HAZARDS

Emergency and First Aid Procedures

Eyes: Flush with water for 15 minutes. Get medical attention.

Skin: Remove contaminated clothing. Wash with soap and water.

Inhalation: Remove to fresh air. Provide artificial respiration or oxygen if required.

Swallowing: Immediately give large quantities of milk or water. If vomiting occurs, give fluid again. Call a physician. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Effects of Overexposure

Eyes: May cause irritation or corneal injury.

Skin: Brief contact may cause irritation. Prolonged contact may cause more severe irritation.

Inhalation: High concentrations are irritating and may cause headache, nausea, dizziness and breathing difficulty.

Ingestion: Slightly toxic, irritating.

Chemical Listed as a Carcinogen or Potential Carcinogen	National Toxicology Program	NO	I.A.R.C. Monographs	NO	OSHA	NO

VI. SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage

Keep away from sparks and open flames. Keep containers cool, dry and closed. Store with adequate ventilation. Avoid inhalation of vapors and contact with product.

Other Precautions

Empty containers may contain explosive vapor. Do not expose empty drums to flame or sparks.

Steps to be Taken if Material is Spilled

Wear suitable protective clothing. Small spills can be flushed with large quantities of water. Large spills should be collected for disposal.

Waste Disposal Methods

Incineration is possible if done so as to comply with federal, state and local regulations.

VII. SPECIAL PROTECTIVE INFORMATION

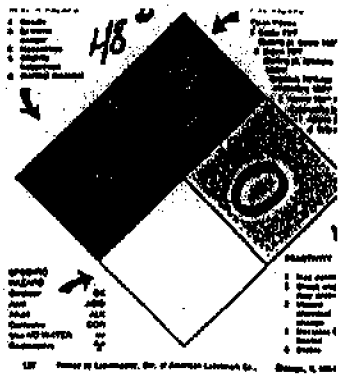
Respiratory Protection:
For high concentrations use NIOSH/MSHA-approved respirator.
Ventilation: Local exhaust
Protective Gloves: Rubber or PVC
Eye Protection: Face mask, goggles with side shields
Other Protective Equipment: Eye bath and safety shower.
Work Hygiene Practices: Wash hands after handling, before using toilet facilities, or before eating, drinking, or smoking. Launder contaminated clothing before reuse, and discard shoes if they become satutated with flux.

N/A = Not Applicable N/E = Not Established

RFE Industries, Inc.

Plant: Foot of Jersey Avenue, Jersey City, NJ 07302 • (201) 451-1593-4 or 451-C

Executive Sales Offices: 19 Crows Mill Road, Keasbey, NJ 08832 • (201) 738-5200



66-0115397-00

RFE 310 FLUX THINNER

RFE INDUSTRIES, 19 Crows Mill Road, Keasbey, N.J. 08
Phone: 201-738-5200 or 201-344-3198
Date Prepared: 4/11/90
Name of person responsible for preparation: John Lukacs

DOT HAZARD CLASSIFICATION: FLAMMABLE LIQUID

DOT PROPER SHIPPING NAME: ALCOHOL N.O.S. UW 1987

RFE INDUSTRIES

Smelting and Refining Division

Metal Joining Products Division

Plating Products Division

SECTION I - COMPONENTS	PERCENT	EXPOSURE LIMIT	UNITS	AGENCY	TYP
HAZARDOUS COMPONENTS					
ETHANOL					
CAS #: 64-17-5		1000.000	ppm	ACGIH	TWA
		1000.000	ppm	MSHA	TWA
		1000.000	ppm	OSHA	TWA
		1000.000	ppm	CAL OSHA	TWA
METHANOL		200.000	ppm	ACGIH	TWA-S
CAS #: 67-56-1		250.000	ppm	ACGIH	STEL-S
		200.000	ppm	TWA	
		200.000	ppm	OSHA	TWA-S
		250.000	ppm	OSHA	STEL-S
		1000.000	ppm	CAL OSHA	CEIL
		600.000	ppm	CAL OSHA	EXCU
		200.000	ppm	CAL OSHA	TWA-S
METHYL ISOBUTYL KETONE		50.000	ppm	ACGIH	TWA
		75.000	ppm	ACGIH	STEL
		100.000	ppm	MSHA	TWA
		50.000	ppm	OSHA	TWA
		75.000	ppm	OSHA	STEL
		50.000	ppm	CAL OSHA	TWA
ETHYL ACETATE		400.000	ppm	ACGIH	TWA
CAS #: 141-78-6		400.00	ppm	MSHA	TWA
		400.00	ppm	OSHA	TWA
		400.00	ppm	CAL OSHA	TWA
RUBBER SOLVENT		400.00	ppm	ACGIH	TWA
CAS#: 6 4742-89-8		400.00	ppm	CAL OSHA	TWA
OTHER COMPONENTS					
--NONE--					

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA 313 AND 40 CFR 372:

	CAS NUMBER	WEIGHT
METHANOL	67-56-1	3-4
METHYL ISOBUTYL KETONE	108-10-1	0.6-2

SECTION II - EMERGENCY AND FIRST AID PROCEDURES

EMERGENCY Have physician call POISON INFORMATION CENTER

EYE CONTACT:

MOVE VICTIM AWAY FROM EXPOSURE AND INTO FRESH AIR. IF IRRITATION OR REDNESS DEVELOPS, FLUSH EYES WITH CLEAN WATER AND SEEK MEDICAL ATTENTION. FOR DIRECT CONTACT, HOLD EYELIDS APART AND FLUSH THE AFFECTED EYE(S) WITH CLEAN WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION

SKIN CONTACT:

REMOVE CONTAMINATED SHOES AND CLOTHING AND CLEANSE AFFECTED AREA(S) THOROUGHLY BY WASHING WITH MILD SOAP AND WATER. IF IRRITATION OR REDNESS DEVELOPS AND PERSISTS, SEEK MEDICAL ATTENTION.

INHALATION(BREATHING):

IF RESPIRATORY SYMPTOMS OR OTHER SYMPTOMS OF EXPOSURE DEVELOP, MOVE VICTIM AWAY FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF SYMPTOMS PERSIST, SEEK IMMEDIATE MEDICAL ATTENTION. IF VICTIM IS NOT BREATHING, IMMEDIATELY BEGIN ARTIFICAL RESPIRATION. IF BREATHING DIFFICULTIES DEVELOP, OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL. SEEK IMMEDIATE MEDICAL ATTENTI

INGESTION(SWALLOWING):

IF SWALLOWED, SEEK EMERGENCY MEDICAL ATTENTION. IF VICTIM IS DROWSY OR UNCONSCIOUS, PLACE ON THE LEFT SIDE WITH THE HEAD DOWN AND DO NOT GIVE ANYTHING BY MOUTH. IF VICTIM IS CONSCIOUS AND ALERT, VOMITING SHOULD BE INDUCED FOR INGESTIONS OF LARGE AMOUNTS(MORE THAN 5 OUNCES IN AN ADULT) PREFERABLY WITH SYRUP OF IPECAC UNDER DIRECTION FROM A PHYSICIAN OR A POISON CENTER IF SYRUP OF IPECAC IS NOT AVAILABLE, VOMITING CAN BE INDUCED BY GENTLY PLACING TWO FINGERS IN THE BACK OF THE THROAT. OF POSSIBLE, DO NOT LEAVE VICTIM UNATTENDED.

COMMENTS:

NOTE TO PHYSICIANS: THIS PRODUCT CONTAINS METHANOL. METHANOL IS METABOLIZED TO FORMALDEHYDE AND FORMIC ACID. THIS IN TURN MAY CAUSE METABOLIC ACIDOSIS, VISUAL DISTURBANCES AND BLINDNESS. BECAUSE METABOLISM MUST OCCUR BEFORE THE TOXIC EFFECTS, THE ONSET OF TOXIC SYMPTOMS MAY BE DLAYED FROM 6 TO 30 HOURS FOLLOWING INGESTION. ETHANOL COMPETES FOR THE SAME METABOLIC PATHWAY AND HAS BEEN USED AS AN ANTIDOTE. METHANOL IS EFFECTIVELY REMOVED BY HEMODIALYSIS.

SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY

EYE CONTACT:

THIS MATERIAL IS AN EYE IRRITANT. DIRECT CONTACT WITH THE LIQUID OR EXPOSURE TO VAPORS OR MISTS MAY CAUSE STINGING,TEARING, REDNESS OR SWELLING.

SKIN CONTACT:

THIS MATERIAL MAY CAUSE MILD SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY CAUSE REDNESS, BURNING, AND DRYING AND CRACKING OF THE SKIN. CONTACT MAY RESULT IN SKIN ABSORPTION BUT SYMPTOMS OF TOXICITY ARE NOT ANTICIPATED GBY THIS ROUTE ALONE UNDER NORMAL CONDITIONS OF USE. PERSONS WITH PRE-EXSISTING SKIN DISORDERS MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS MATERIAL.

INHALATION (BREATHING):

WHILE THIS MATERIAL HAS A LOW DEGREE OF TOXICITY, BREATHING HIGH CONCENTRATIONS OF VAPORS OR MISTS MAY CAUSE IRRITATION OF THE NOSE AND THROAT, NAUSEA, AND SIGNS OF NERVOUS SYSTEM PRESSION(E.G. HEADACHE, DROWSINESS, DIZZINESS, LOSS OF COORDINATION AND FATIGUE). RESPIRATORY SYMPTOMS ASSOCIATED WITH PRE-EXISTING LUNG DISORDERS(E.G., ASTHMA-LIKE CONDITIONS) MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.

INGESTIONS(SWALLOWING):

A COMPONENT OF THIS MATERIAL IS TOXIC AND MAY BE HARMFUL IS SWALLOWED. EFFECTS OF OVER-

(E.G. HEADACHE, DROWSINESS, DIZZINESS, LOSS OF COORDINATION AND FATIGUE), VOMITING DRUNKENNESS, STUPOR, VISUAL DISTU NCES (INCLUDING BLINDNESS), CO LSTIONS, COMA AND DEATH.

COMMENTS:

SUMPTION OF ALCOHOLIC BEVERAGES HAS BEEN IDENTIFIED AS A HUMAN CANCER HAZARD BY IARC. ETHANOL IS THE SAME ALCOHOL FOUND IN ALCOHOL BEVERAGES. HOWEVER, THE ALCOHOL IN THIS PRODUCT HAS BEEN DENATURED MAKING IT UNFIT TO DRINK. LONG TERM INGESTION OF LARGE QUANTITIES OF ETHANOL HAS ALSO BEEN ASSOCIATED WITH LIVER DAMAGE, IRREVERSIBLE CHANGES IN THE GENETIC MATERIAL(DNA) OF A CELL, AND ADVERSE EFFECTS ON THE REPRODUCTIVE SYSTEM AND DEVELOPING FETUS. SUCH EFFECTS HAVE NOT BEEN REPORTED NOR ARE EXPECTED FROM NORMAL OCCUPATIONAL EXPOSURES TO ETHANOL. INHALATION OF ETHYL ACETATE PRODUCED LIMITED EVIDENCE OF ANEMIA IN LABORATORY ANIMALS. THE RELEVANCE OF THESE FINDINGS TO HUMANS ARE UNCERATING. PRE-EXISTING BLOOD DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL. METHANOL CAUSES HARM TO THE FETUS IN LAB ANIMALS STUDIES. THE RELEVANCE OF THESE FINDINGS TO HUMANS IN UNCERTAIN. REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL EXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVIOUS SYSTEM DAMAGE(SOMETIMES REFERRED TO AS SOLVENT OR PAINTERS SYNDROME) INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THIS PRODUCT MAY BE HARMFUL OR FATAL.

SECTION IV-SPECIAL PROTECTION INFORMATION

VENTILATION:

IF CURRENT VENTILATION PRACTICES ARE NOT ADEQUATE TO MAINTAIN AIRBORNE CONCETRATIONS BELOW THE ESTABLISHED EXPOSURE LIMITS(SEE SECTION I), ADDITIONAL VENTILATION OR EXHAUST SYSTEMS MAY BE REUIRED. WHERE EXPLOSIVE MIXTURES MAY BE PRESENT, ELECTRICAL SYSTEMS SAFE FOR SUCH LOCATIONS MUST BE USED.

RESPIRATORY PROTECTION:

AIRBORNE CONCENTRATIONS EXCEED ESTABLISHED EXPOSURE LIMITS (SEE SECITON I). USE A SUPPLIED ...R RESPIRATOR. DO NOT USE A CHEMICAL CARTRIDGE RESPIRATOR.

SECTION IV-SPECIAL PROTECTION INFORMATION

PROTECTIVE GLOVES:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION.

EYE PROTECTION:

APPROVED EYE PROTECTION TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURRY IS RECOMMENDED .

OTHER PROTECTIVE EQUIPMENT:

IT IS SUGGESTED THAT A SOURCE OF CLEAN WATER BE AVAILABLE IN THE WORK AREA FOR FLUSHING EYES AND SKIN. IMPERVIOUS CLOTHING SHOULD BE WORN AS NEEDED.

SECTION V-REACTIVITY DATA

REACTIVITY:

STABLE UNDER NORMAL CONDITIONS OF STORAGE AND HANDLING

CONDITIONS AFFECTING REACTIVITY:

AVOID ALL POSSIBLE SOURCES OF IGNITION(SEE SECTIONS VII AND VIII).

INCOMPATIBLE MATERIALS:

THIS PRODUCT IS INCOMPATIBLE WITH STRONG ALKALIES AND STRONG OXIDIZNG AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS

COMBUSTION MAY YIELD CARBON MONOXIDE AND/OR CARBON DIOXIDE.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

POLYMERIZATION CONDITIONS TO AVOID

SECTION VI - SPILL AND LEAK PROCEDUERS ***HIGHWAY OR RAILWAY SPILLS***
Call Chemtrec (800) 424-9300 Cont. US
Collect (202) 483-7616 from Alaska and Hawaii

PRECAUTIONS IN CASE OF RELEASE OR SPILL:

AMMABLE. KEEP ALL SOURCES OF IGNITION AND HOTMETAL SURFACES AWAY FROM SPILL/RELEASE. STAY UPWIND AND AWAY FROM SPILL/RELEASE. ISOLATE HAZARD AREA AND LIMIT ENTRY TO EMERGENCY CREW. STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT(SEE SECTION IV) PREVENT SPILLED MATERIAL FROM ENTERING SEWERS, STROM DRAINS, OTHER UNAUTHORIZED TREATMENT DRAINAGE SYSTEMS AND NATURAL WATERWAYS. DIKE FAR AHEAD OF SPILL FOR LATER RECOVERY OR DISPOSAL. SPILLED MATERIAL MAY BE ABSORBED INTO AN APPROPRIATE ABSORBENT MATERIAL. USE WATER SPARINGLY TO REDUCE DISPOSAL REQUIREMENTS. NOTIFY FIRE AUTHORITIES AND APPROPRIATE FEDERAL, STATE AND LOCAL AGENCIES. IMMEDIATE CLEANUP OF ANY SPILL IS RECOMMENDED.

EPA REPORTABLE QUANTITY:

NONE

SECTION VI-SPILL AND LEAK PROCEDURES

WASTE DISPOSAL METHOD:

DISPOSE OF PRODUCE IN ACCORDANCE WITH LOCAL, COUNTY, STATE AND FEDERAL REGULATIONS.

SECTION VII -STORAGE AND SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

KEEP CONTAINERS TIGHTLY CLOSED. USE AND STORE THIS MATERIAL IN COOL,DRY, WELL VENTILATED AREAS AWAY FROM HEAT, DIRECT SUNLIGHT. HOT METAL SURFACES AND ALL SOURCES OF IGNITION POST AREA "NO SMOKING OR OPEN FLAME." BOND AND GROUND ALL EQUIPMENT WHEN TRANSFERRING FROM ONE VESSEL TO ANOTHER. STORE ONLY IN APPROVED CONTAINERS. KEEP AWAY FROM ANY INCOMPATIBLE MATERIALS(SEE SECTION V). PROTECT CONTAINER(S) AGAINST PHYSICAL AGE. THE USE OF EXPLOSION-PROOF EQUIPMENT IS REOMMENDED AND MAY BE REQUIRED (SEE PROPRIATE FIRE CODES) DO NOT ENTER CONFINED SPACES SUCH AS TANKS OR PITS WITHOUT FOLLOWING PROPER ENTRY PROCEDURES SUCH AS ASTM D-4276. OUT DOOR OR DETACHED STORAGE IS PREFERRED. INDOOR STORAGE SHOULD MEET OSHA STANDARDS AND APPROPRIATE FIRE CODES. THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED ANY ESTABLISHED EXPOSURE LIMITS (SEE SECTION I AND IV). WASH THOROUGHLY AFTER HANDLING. DO NOT WEAR CONTAMINATED CLOTHING OR SHOES. USE GOOD PERSONAL HYGIENE PRACTICES. "EMPTY" CONTAINERS RETAIN RESIDUE (LIQUID AND /OR VAPOR) AND CAN BE DANGEROUS. DO NOT PRESSURIZE, CUT , WELD BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. "EMPTY" DRUMS SHOULD BE COMPLETELY DRAINED, PROPERLY BUNGED AND PROMPTLY SHIPPED TO THE SUPPLIER OR A DRUM RECONDITIONER. ALL OTHER CONTAINERS SHOULD BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER AND IN ACCORDANCE WITH GOVERNMENTAL REGULATIONS. BEFORE WORKING ON OR IN TANKS WHICH CONTAIN OR HAVE CONTAINED THIS PRODUCE, REFER TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ANSI 249.1, AND OTHER GOVERNMENTAL AND INDUSTRIAL REFERENCES PERTAINING TO CLEANING, REPAIRING, WELDING OR THER CONTEMPLATED OPERATIONS.

SECTION VIII-FIRE AND EXPLOSION HAZARD DATA

HMIS 1

NFPA HAZARD CLASS			HAZARD RANKING	FLASH POINT
	HEALTH HAZARD:	1	0 = LEAST	48 F TCC
	FLAMMABILITY:	3	1 = SLIGHT	
	REACTIVITY:	0	2 = MODERATE	
	OTHER:		3 = HIGH	
			4 = EXTREME	

LOWER EXPLOSIVE LIMIT (% VOL.)
3

UPPER EXPLOSIVE LIMIT (% VOL.)
19

EXTINGUISHING MEDIA?

DRY CHEMICAL, CARBON DIOXIDE, GALON, POLAR OR ALCOHOL FOAM, OR WATER SPRAY IS RECOMMENDED. WATER MAY BY INEFFECTIVE.

UNUSUAL FIRE & EXPLOSION HAZARDS:

THIS MATERIAL IS FLAMMABLE AND MAY BE IGNITED BY HEAT, SPARKS, FLAME OR OTHER SOURCES OF IGNITION (E.G. STATIC ELECTRICITY, PILOT LIGHTS, MECHANICAL/ELECTRICAL EQUIPMENT). VAPORS MAY TRAVEL CONSIDERABLE DISTANCES TO A SOURCE OF IGNITION WHERE THEY MAY IGNITE, FLASHBACK OR EXPLODE. VAPOR/AIR EXPLOSION HAZARD INDOORS/OUTDOORS OR IN SEWERS. VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMUALTE IN LOW AREAS. IF CONTAINER IS NOT PROPERLY COOLED, IT MAY EXPLODE IN THE HEAT OF A FIRE. VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMULATE IN LOW AREAS.

SPECIAL FIRE FIGHTING PROCEDURES:

WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT(SEE SECTION IV). STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. MOVE UNDAMAGED CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. WATER SPRAY MAY BE USEFUL IN MINIMIZING OR DISPERSING VAPORS AND COOLING EQUIPMENT EXPOSED TO HEAT AND FLAME. AVOID SPREADING BURNING LIQUID WITH WATER USED FOR COOLING PURPOSES.

SECTION IX - PHYSICAL DATA

***UNLESS OTHERWISE NOTED, VALUES ARE AT 20 C/68 F AND 760 mm Hg/1 atm.

APPROX. BOILING POINT	(AIR = 1) VAPOR DENSITY	(N-BUTYL ACETATE = 1) EVAPORATION RATE	% VOLATILE
165 - 176 F	1.6	1.90	100

% SOLUBILITY IN WATER	VAPOR PRESSURE (mm Hg)
100	53

SPECIFIC GRAVITY

0.796 (60 F/60 F)
0.785 ± 0.005 @ 77°F (25°C)

APPEARANCE

CLEAR, LITTLE IF ANY COLOR, LIQUID

ODOR

CHARACTERISTIC

SECTION X -PRECAUTIONARY WARNING

WARNING!! FLAMMABLE. BIRTH DEFECTS HAZARD IF SWALLOWED. CAUSES EYE IRRITATION. HARMFUL IF SWALLOWED. MAY CAUSE BLINDNESS IF SWALLOWED. KEEP AWAY FROM HEAT, SPARKS FLAME OR OTHER SOURCES OF IGNITION (E.G. STATIC ELECTRICTY, PILOT LIGHTS OR MECHANICAL/ ELECTRICAL EQIUPMENT). AVOID EXPOSURE DURING PREGNANCY. DO NOT GET IN EYES, OR SKIN, OR ON CLOTHING. DO NOT BREATHE VAPORS OR MISTS. DO NOT TASTE OR SWALLOW. KEEP CONTAINERS CLOSED. USE ONLY WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. FIRST AID: IF LARGE AMOUNTS (MORE THAN 5 OUNCES) ARE SWALLOWED, AND VICTIM IS CONSCIOUS AND ALERT, INDUCE VOMITING, PREFERABLY BY GIVING SYRUP OF IPECAC OR BY GENTLY PLACING TWO FINGERS IN THE BACK OF THE THROAT. IF VICTIM IS UNCONSCIOUS, DO NOT GIVE ANYTHING BY MOUTH. CALL A PHYSICIAN. IN CASE OF EYE CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. CALL A MD. IN CASE OF SKIN CONTACT, FLUSH SKIN WITH PLENTY OF WATER.

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